

City Of Rockville Rockville, Maryland

Invitation for Bid #06-14

Accessible Pedestrian Signals Project
REVISION 1, December 26, 2013

Bids Due by 2:00 P.M., Wednesday, January 22, 2014

Issued By:

City Of Rockville Purchasing Division 111 Maryland Avenue Rockville, Maryland 20850 Phone: 240.314.8430

Fax: 240.314.8439

Any individuals with disabilities who would like to receive the information in this document in another form may contact the ADA Coordinator at 240.314.8100, TDD 240.314.8137.

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CITY OF ROCKVILLE ROCKVILLE, MARYLAND

INVITATION FOR BID NO. 06-14 Accessible Pedestrian Signals Project REVISION 1, December 26, 2013

SEALED BIDS will be received at the Purchasing Office, City of Rockville, 111 Maryland Avenue, Rockville, Maryland 20850-2364 until **2:00 P.M. Tuesday, January 22, 2014**.

SECTION I: OVERVIEW

1.1 Project Description.

The project consists of supplying the labor, equipment, tools, and materials for the installation of accessible pedestrian signals, countdown pedestrian signals, and Americans with Disabilities Act of 1990 (ADA) compliant sidewalk ramps at the following seven intersections:

- 1. West Gude Drive and Gaither Road
- 2. West Gude Drive and Watkins Pond Boulevard
- 3. West Gude Drive and Piccard Drive
- 4. Gaither Road and Piccard Drive
- 5. Redland Boulevard and Piccard Drive
- 6. King Farm Boulevard and Gaither Road
- 7. King Farm Boulevard and Pleasant Drive

1.2 Minimum Bidder Qualifications:

- A. The Bidder and any proposed subcontractor(s) shall be properly licensed to conduct the project work in Montgomery County, Rockville, Maryland.
- B. At a minimum, the Bidder must provide written evidence (through references) of three years prior experience with the scope of work as detailed in the specifications.
- C. If the Bidder intends to subcontract any or part of the work, then the Bidder must identify and include references for each qualified subcontractor, together with a description of the proposed subcontract work. This evidence shall be submitted with the bid, or the City, at its discretion, may determine the bid to be unresponsive. A minimum of three references shall be provided; additional project references may be required to meet all the requirements. References shall include the property name, address, contact person's name and telephone number, and a description of the work performed. (See Submittal Requirements Section 8.6 Subcontracting Plan)

- D. The City reserves the right to conduct such investigations as it deems necessary to determine the ability of the Bidder to successfully and timely perform the work. The City reserves the right to request additional information from the Bidder. The City may reject any bid where an investigation of the evidence or information submitted by the Bidder does not satisfy the City that the Bidder is qualified to properly carry out the terms of the Bid Document.
- E. Subcontractors shall conform in all respects to the applicable provisions specified for the prime contractor and shall be subject to approval by the City. If a subcontractor or proposed subcontractor is determined to be unacceptable to the City, the Contractor shall substitute an acceptable subcontractor with no change in any contract unit prices or overall contract sum.
- F. If your organization is listed on the U.S. Excluded Parties List https://www.epls.gov/ on the IFB official closing date or is put on the Excluded Parties List at any time prior to the formal award of the contract, the Purchasing Manager shall immediately determine your organization as non-responsible and your bid proposal will be rejected.

1.3 **PROJECT CLASSIFICATION:**

The estimated cost of this project is between \$250,000 and \$450,000.

END SECTION I

SECTION II - ADMINISTRATIVE BIDDING REQUIREMENTS AND INSTRUCTIONS

2.1 **Procurement Rules:**

- A. The City of Rockville has established for purposes of this Invitation for Bid (IFB) that the words "shall", "must", or "will" are equivalent in this IFB and indicate a mandatory requirement or condition, the material deviation from which will <u>not</u> be waived by the City. A deviation is material if, in the City's sole discretion, the deficient response is not in substantial accord with this IFB's mandatory requirements.
- B. The words "should" or "may" are equivalent in this IFB and indicate very desirable conditions, or requirements but are permissive in nature. Deviation from, or omission of, such a desirable condition or requirement will not in and of itself cause automatic rejection of a bid proposal, but may result in being considered as not in the best interest of the City of Rockville.
- C. To be considered for an award, the Bidder must agree to abide by each mandatory requirement included in this IFB.

D. Definitions:

- 1. The term "**Invitation for Bid**" (IFB) means this invitation for you, the Bidder, to make an offer to the City of Rockville.
- 2. The terms "bid" and "bid proposal" means the offer submitted by you, the Bidder.
- 3. The term "**bidder**" means the entity making an offer to the City of Rockville in response to this invitation.
- 4. The term "**City**" means the City of Rockville.
- 5. The term "**Contractor**" means a bidder that is awarded a contract as a result of this Invitation for Bid.
- 6. The term "day" means calendar day unless otherwise specified in the document.
- 7. The term "dollar" and the symbol "\$" mean United States of America dollars.
- 8. The term "**Engineer**" means the design professional responsible for the specifications and plans.
- 9. The acronyms "MDSHA" and "SHA" stand for the Maryland State Highway Administration.

- 10. The acronym "**MUTCD**" refers to the U.S. Department of Transportation, Federal Highway Administration's Manual on Uniform Traffic Control Devices. http://mutcd.fhwa.dot.gov/
- 11. The term "**Project Manager**" means the City of Rockville person managing the project for the City.
- 12. The terms "you" and "your" means the same as the term "bidder" above.
- 13. The acronym "WSSC" refers to the Washington Suburban Sanitary Commission.
- 14. All references to a time of day are references to the time in Montgomery County, Maryland, USA.

2.2 Proposed Schedule - REVISED:

- A. Questions Due Monday January 13, 2013, by 8:30 A.M.
- B. IFB closing date Wednesday January 22, 2013, 2:00 P.M., local time.
- C. Opening/Reading of bids Wednesday January 22, 2013 after 2:00 P.M. local time
- D. Award of Contract To Be Determined
- E. Notice To Proceed *To Be Determined*
- 2.3 There will NOT be a pre-bid conference for this project.

2.4 Questions Concerning This Invitation for Bid (IFB):

- A. Questions concerning any portion of this IFB should be directed in writing [fax and e-mail accepted] to the below name individual who shall be the official point of contact for this IFB. Questions should be submitted by 8:30 A.M. Monday, January 13, 2013.
- B. Mark subject line or cover page or envelope "Questions on IFB #06-14.
- C. Submit questions to: Kenneth D. Hayslette, CPPO, C.P.M., CPCM

Purchasing Manager City Of Rockville

Telephone: 240.814.8432

Fax: 240.814.8439

E-mail: KHayslette@RockvilleMd.gov

- D. Failure by a Bidder to ask questions or request changes by the dates indicated above shall constitute the Bidder's acceptance of all of the terms, conditions and requirements set forth in this IFB.
- E. No answers given in response to questions submitted shall be binding upon this IFB unless

released in writing as an addendum to the IFB by the City Of Rockville, Purchasing Office.

F. Oral answers to questions relative to interpretation of specifications or the proposal process will not be binding on the City.

2.5 Delivery of Bid Proposal:

a. Your bid proposal (offer) shall be sealed and delivered or mailed to:

City of Rockville
Purchasing Division
2nd Floor
111 Maryland Avenue
Rockville, Maryland 20850

b. Clearly mark each bid proposal package with: BID NUMBER: IFB # 06-14

c. BID TITLE: Accessible Pedestrian Signals Project

d. BIDDERS NAME: (Insert Bidder's Name and Address)

e. DUE DATE: January 22, 2014

- B. Failure to clearly mark each bid proposal package with this information may cause the City of Rockville to open the bid proposal package before the official closing date and time. If the bid proposal package is opened due to lack of markings, it shall be resealed and opened at the official IFB opening.
- C. It is solely the Bidder's responsibility to ensure that its bid proposal package is DELIVERED TO and ACCEPTED by the City of Rockville's Purchasing Division at the above specified address prior to the official closing date and time. A bid proposal will not be considered for award if received in the City of Rockville's Purchasing Division after the official closing date and time.
- D. **Note**: Please ensure that if you use a third party carrier (USPS, FedEx, Airborne, UPS, etc.) that the carrier is instructed to deliver your bid proposal package **only** to the address above.
- E. The City will <u>not</u> accept facsimile (fax) or electronic submission of bid proposals.

2.6 Public Bid Opening:

A. Shortly after the date and time specified above, all bid proposals that have been timely accepted by the City of Rockville will be opened, recorded, and accepted for consideration.

- B. The bid opening will be held in the Mayor & Council Chambers on the Third Floor of the address listed above.
- C. The names of the bidders submitting bid proposals will be read aloud and recorded. The bid proposals will be available for inspection during normal business hours in the Purchasing Division after the official bid opening.
- D. Individuals covered by the Americans with Disabilities Act of 1990 (ADA) in need of accommodations to attend public bid openings or meetings should contact the ADA Coordinator at 240.314.8100, TDD 240.314.8137.at least five days prior to the closing date.

2.7 5% Bid Security Required with Bid Proposal:

- A. To be considered for award, a bid proposal must be accompanied by bid security made payable to the Mayor and Council of Rockville in an amount of 5% of Bidder's Total Bid Price, and, in the form of a certified check or a Bid Bond (AIA bond form is acceptable).
- B. The Bid Bond must be issued by a surety licensed to do business in the State of Maryland. Bid bonds will <u>not</u> be returned. Bid security in the form of a check will be returned within 5 working days after the award of the contract.

2.8 Bidder's Responsibilities:

- A. While the City has used considerable efforts to ensure an accurate representation of information in this IFB, you, the Bidder, are urged to conduct your own investigations into the material facts and the City shall not be held liable or accountable for any error or omission in any part of this IFB.
- B. It is incumbent upon you to carefully examine these specifications, terms, and conditions. Any inquiries, suggestions, or requests concerning interpretation, clarification or additional information shall be made in writing in accordance with procedures set forth in Section 2.4 above. The City will <u>not</u> be responsible for any oral representation given by any employee, representative or others. The issuance of a written addendum is the only official method by which interpretation, clarification or additional information can be given.
- C. If the City revises (amends) this IFB, the City will give post the notice of each revision (amendment) on the websites listed below. You should acknowledge each amendment in your bid proposal. Failure to acknowledge each addendum may prevent your bid proposal from being considered for award. It is solely your responsibility to ensure that you have received all addenda to this IFB before submitting your bid proposal.

D. To ensure fair consideration for all potential bidders, any interpretation made to prospective bidders will be expressed in the form of a written addendum to the specifications, if such information is deemed necessary for the preparation of bid proposals or if the lack of such information would be detrimental to the uninformed bidders. Such addendums, if issued, will posted at the addresses listed below:

http://www.rockvillemd.gov/business/bids.htm

https://emaryland.buyspeed.com/bso/external/publicBids.sdo

- E. It is SOLELY the bidder's responsibility to check one of the above sites frequently for Addenda, which may impact pricing, requirements, terms and/or conditions. Failure to sign and return an Addendum with your bid proposal may result in rejection of the bid proposal as non-responsive.
- F. By submitting a bid proposal you, the Bidder, are representing that (1) you have read and understand the IFB specifications and requirements; (2) your bid proposal is made in accordance therewith; and (3) you are familiar with the local conditions under which you must perform.
- G. Before submitting a bid proposal, you shall make all investigations and examinations necessary to ascertain site conditions and requirements affecting the full performance of the contract and to verify any representations made by the City upon which you will rely. You should thoroughly examine all applicable drawings, technical specifications and contract documents.
- H. If you receive an award because of your bid proposal submission, your failure to examine any form of legal instrument or to visit the site(s) or to make such investigations and examinations will in no way relieve you of your obligations to comply in every detail with all provisions and requirements of the contract, nor will a plea of ignorance of such conditions and requirements be accepted as a basis for any claim for additional compensation or relief.

2.9 Special Responsibility:

- A. In addition to the evaluation of responsibility listed in Section 7.2. Responsibility, the City will also evaluate each bidder's apparent special responsibility based upon the information provided by the Bidder in its Bidder Questionnaire, from information provided by references, and on other investigations that the City may conduct.
- B. The Bidder's safety program and safety records are also a factor in determining this special responsibility.
- C. The Bidder should carefully and thoroughly complete all sections of the Bidder Questionnaire and return it with the Bidder's bid proposal.

- D. If the City cannot readily determine from the Bidder Questionnaire and references that the Bidder is qualified and competent to successfully accomplish this project within the required time, the City will determine that the Bidder is non-responsible and its bid will not be considered for award.
- E. The City reserves the right to reject the bid of a Bidder who has previously failed to satisfactorily perform or complete in a timely manner any similar type contract with any governmental or quasi-governmental agency.

2.10 Evaluation of Bids:

- A. The City will review each bid proposal received and accepted prior to the official closing date and time for responsiveness:
 - 1. Has the Bidder conformed to all requirements of this Invitation for Bid?
 - 2. Are all forms properly signed and sealed as required?
 - 3. Are all required documents included with the bid proposal package?
 - 4. Did the Bidder take any exceptions to the requirements?
- B. Price Reasonableness and Price Realism Reviews:
 - 1. The Purchasing Manager will have all price proposals analyzed against City's initial price estimate for price reasonableness (price too high) and price realism (price too low);
 - 2. The Purchasing Manager may have additional confidential price analysis(es) conducted on any price proposal;
 - 3. If based upon the price analysis, the Purchasing Manager determines that the price proposed appears unreasonable or unrealistic the Purchasing Manager will require that the Bidder submit documentation justifying the bid price(s) proposed.
 - 4. If the Bidder's justification does not satisfy the Purchasing Manager, and, if the award of the contract to the Bidder would result in an advantage to the Bidder with a corresponding disadvantage to the City, or, if the competitive bidding process is jeopardized, then Purchasing Manager will reject the bid proposal as non-responsive in order to protect the public interest.

C. Unbalanced Bid:

- 1. An unbalanced bid is a bid with line items or unit prices with an extreme variation from the City's estimate, or where obvious unbalancing of unit prices has occurred.
- 2. If the Purchasing Manager determines that the bid appears to be unbalanced, the Purchasing Manager will require that the Bidder submit documentation justifying the bid price(s) proposed.
- 3. If the Bidder's justification does not satisfy the Purchasing Manager, and, if the

award of the contract to the Bidder would result in an advantage to the Bidder with a corresponding disadvantage to the City, or, if the competitive bidding process is jeopardized, then Purchasing Manager will reject the bid proposal as non-responsive in order to protect the public interest.

2.11 Award of Contract:

- A. <u>IF</u> the City of Rockville awards a contract as the result of this Invitation for Bid, the City intends to award it to the responsible bidder whose bid, conforming with all the material terms and conditions of this Invitation for Bid, is the lowest in price.
- B. Your bid proposal is a binding offer to the City. The City will consider the bid proposal (offer) that you, the Bidder, make to the City as a binding offer for not less than 90 calendar days from the IFB closing date. The City may request an extension on the time to award a contract, and, you have the right to accept or decline such a request. The City will consider the signed bid proposal as an offer by you and such offer shall be judged accepted by the City only in accordance with all requirements listed below.
- C. The City is <u>not</u> obligated to make any award as a result of this IFB.
- D. The City has the sole discretion and reserves the right to cancel this IFB, and to reject any and all bids, to waive any and all informalities and/or minor irregularities, or to re-advertise with either the identical or revised scope of work, if it is judged to be in the City's best interests to do so.
- E. In the event of default by the awarded Bidder, the City reserves the right to award a contract to the responsible Bidder with the next lowest priced responsive bid proposal without any further notice or competition.
- F. The City reserves the right to reject any bid proposal determined by the Purchasing Manager to be inadequate or unacceptable.

G. Acceptance of Offer:

A bid proposal / offer will be considered accepted by the City and a contract formed between the City and the Bidder **ONLY AFTER ALL** of the following actions have been completed:

- i. The contract document(s) has been formally and legally approved, signed by the Bidder's authorized agent, and returned to the Purchasing Manager; and
- ii. The certificate of insurance and all endorsements have been received and approved by the City's Risk Manager; and
- iii. The proposed award has been properly approved by the City Of Rockville Mayor and Council; and
- The contract document has been formally and legally approved and countersigned by the City Manager.

2.12 Signed Agreement and Insurance Certificate Required Before Formal Award:

- A. Before the recommendation for award is presented to the City of Rockville's Mayor and Council for formal award, (see item 2.10.J.iii above) the recommended Bidder must complete, sign, and return two copies of the City's Standard Form of Agreement (sample attached) and the appropriate Certificate(s) of Insurance with all endorsements.
- B. Failure by the recommended Bidder to provide the signed contract documents, insurance certificate and endorsements with the required time shall be just cause for annulment of the award and the forfeiture of the Bid Security which shall become the property of the City, not as a penalty but in liquidation of damages sustained. The City may then recommend award of the contract to the responsible bidder with the next lowest responsive bid.

2.13 100% Performance and Payment Bonds:

- A. Within 10 work days of notice from the Purchasing Division, the awarded Bidder shall submit separate a 100% Performance Bond and a 100% Payment (samples attached) each in the amount of 100% of the awarded contract amount. The Performance and Payment Bonds must be issued by a surety licensed to do business in the State of Maryland.
- B. The City will <u>not</u> accept any other form of performance or payment security.
- C. Failure by the awarded Bidder to provide the Performance and Payment Bonds within the time specified shall be just cause for annulment of the award and the forfeiture of the Bid Security which shall become the property of the City, not as a penalty but in liquidation of damages sustained. The City may then recommend award of the contract to the responsible bidder with the next lowest responsive bid.

2.14 Licenses/Certificates:

- A. The City reserves the right to require documentation that each Bidder is an established business and is abiding by the Ordinances, Regulation, and Laws of their community and the State of Maryland.
- B. If you are required by any regulatory agency to maintain professional license or certification to provide any product and/or service solicited under this IFB, the City reserves the right to require you to provide documentation of your current license and/or certification <u>before</u> considering your bid proposal and/or before awarding a contract.
- C. If you fail to keep your required license and/or certification current and in force for the term of the contract and any extension, the City will deem you to be in breach of contract and will take all appropriate actions.

2.15 Withdrawal of Bid:

- A. You may withdraw your bid or modify it at any time prior to the official closing date and time. You will be required to produce photo identification that satisfies the City prior to withdrawal or modification of your bid.
- B. Negligence upon your part in preparing your bid confers no right of withdrawal after the official closing date and time.
- C. After the official closing date and time you may withdraw your bid without prejudice from consideration <u>only</u> if the price(s) submitted in your bid is substantially lower than the other bids due solely to a mistake therein, provided that:
 - 1. You submitted your bid in good faith and the mistake is a clerical mistake as opposed to a judgment mistake, and is actually due to an unintentional arithmetic error or an unintentional omission of a quantity of work, labor, or material made directly in the compilation of a bid, which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of original work papers, documents and materials used in the preparation of your bid, and
 - 2. You provide written notice to the Purchasing Manager within two business days after the official opening date of your claim of right to withdraw your bid.
- D. The City will <u>not</u> permit a Bidder to withdraw its bid/offer under this section when the result would be to award the contract on another bid of the same Bidder or of another bidder in which the ownership of the withdrawing Bidder is more than five percent.
- E. No bidder who is permitted to withdraw its bid shall, for compensation, supply any material or labor or perform any subcontract or other work agreement for the person or firm to whom the contract is awarded or otherwise benefit, directly or indirectly, from the performance of the project for which the withdrawn bid was submitted.
- **F.** Except as otherwise provided by regulation, all decisions to permit the correction or withdrawal of bids, or to cancel awards or contracts based on bid mistakes, shall be supported by a written determination made by the Purchasing Manager. If the Purchasing Manager denies the withdrawal of your bid, he/she shall notify you in writing stating the reason for the decision.

Errors In Bids:

When an error is made in extending total prices, the unit price will govern. The Bidder shall initial any erasure on any bid document. Carelessness in quoting prices or in preparation of the

bid will not relieve the Bidder from performing the contract. Errors discovered after public opening cannot be corrected and the Bidder will be required to perform if the bid is accepted.

2.17 Mistakes:

- A. You, the Bidder, are expected to be thoroughly familiar with all bid documents, including all addenda. The City will not grant any consideration for any alleged misunderstanding of the intent of the contract documents. In the process of assembling and binding the bid documents individual pages or drawings may have been inadvertently omitted.
- B. Each bidder shall carefully and thoroughly examine all applicable drawings, technical specifications, IFB and contract documents for completeness. No claim of any bidder will be allowed on the basis that these bid documents are incomplete.
- C. The City will not relive the awarded bidder (Contractor) any obligation due under the executed contract by the Bidder's failure to examine any form of legal instrument or to visit the site.

2.18 Interest In More Than One Bid And Collusion:

Multiple bids received in response to a single solicitation from an individual, firm, partnership, corporation, affiliate, or association under the same or different names will be rejected. Reasonable grounds for believing that a bidder is interested in more than one bid for a solicitation both as a bidder and as a subcontractor for another bidder will result in rejection of all bids in which the bidder is interested. However, a firm acting only as a subcontractor may be included as a subcontractor for two or more bidders submitting a bid for the work. Any or all bids may be rejected if reasonable grounds exist for believing that collusion exists among any bidders. Bidders rejected under the above provisions shall be disqualified if they respond to a resolicitation for the same work.

2.19 Audible Pedestrian Signal Equipment:

All Audible Pedestrian Signal push buttons and associated equipment proposed in your bid document must be listed in or available from the suppliers listed in the latest version of the Maryland State Highway Administration, Office of Traffic and Safety, Qualified Products List, available at http://roads.maryland.gov/OMT/QPLTS.pdf. If you submit a bid with Audible Pedestrian Signal push buttons and associated equipment not in the State's Qualified Products List, your bid will be rejected as non-responsive.

2.20 <u>Alternate / Equivalent Equipment or Material:</u>

- A. Alternate / Equivalent Item Proposed with Bid:
 - 1. If you propose using any item of equipment or material different from that specified in these documents, you must include a complete set of specifications and justifications with

your bid proposal package to substantiate the equivalency or superiority of the proposed alternate item. You must clearly identify each proposed alternate item in the "Exceptions" section of your bid proposal. Neither the City nor the Engineer will conduct research to find specifications for any proposed alternate item.

- 2. The Engineer will review the submitted documentation for each proposed alternate item to determine its equivalency to the minimum required specifications.
 - i. If the Engineer concurs that the item(s) is(are) equivalent, then your bid proposal will be considered for award.
 - ii. If the Engineer determines that the proposed alternate item is not equivalent, then you bid proposal will be rejected as non-responsive and will not be considered for award.

B. Alternate / Equivalent Item Proposed after Award:

- 1. If you propose using any item of equipment or material different from that specified in these documents, you shall submit a complete set of specifications and justifications as an Engineering Change Request to the Project Manager.
- 2. The Project Manager will review the materials and submit a request to the Engineer for a price proposal to review the change request.
- 3. The Project Manager will submit the Engineer's price proposal to you for review and approval / rejection.
 - i. If within the time specified by the Project Manager, you approve the Engineer's price proposal to review the proposed change, the amount of the Engineer's price proposal will be deducted from you total contract price. The Engineer will then analyze your requested change and make a decision which will be communicated to you by the Project Manager. If the change is approved, the City will modify the contract documents to reflect the change(s).
 - ii. If you do not respond within the time specified by the Project Manager, or, you do not approve the Engineer's price proposal, then the Engineering Change Request will be considered withdrawn.

2.21 Notice to Bidders from Outside Maryland:

"Pursuant to 7-201 et seq. of the Corporations and Associations, Article of the Annotated Code of Maryland corporations not incorporated in the State, shall be registered with the Department of Assessments and Taxation, 301 West Preston Street, Baltimore, Maryland 21201 before doing

any interstate or foreign business in this state. Before doing any intrastate business in this state, a foreign corporation shall qualify with the Department of Assessments and Taxation."

2.22 U.S. Treasury Employer Identification Number:

Each Bidder must supply with its bid its U.S. Treasury Department Employers' Identification Number as such number is shown on its Employer's quarterly Federal Tax Return (U.S. Treasury Department Form No. 941). This number shall be written on the Bid Proposal Form in the space provided.

2.23 Qualification to Contract with Public Body:

- A. Each bidder must be qualified to bid in the State of Maryland in accordance with Section 14-308 of the State Finance and Procurement Article of the Annotated Code Of Maryland which ordains that any person convicted of bribery (upon acts committed after July 1, 1997) in furtherance of obtaining a contract from the State or any subdivision of the State of Maryland shall be disqualified from entering into a contract with the City.
- B. The attached AFFIDAVIT OF QUALIFICATION TO CONTRACT WITH A PUBLIC BODY must be completed and returned with the bid proposal.

2.24 Incurred Expenses:

This IFB does not commit the City to make an award nor shall the City be responsible for any cost or expense which may be incurred by any bidder in preparing and submitting a bid proposal or offer, or any cost or expense incurred by any bidder prior to the execution of a purchase order or contract agreement. By submitting a bid proposal, you, the bidder, agree that all costs associated with the preparation of your bid proposal will be solely your responsibility. You also agree that the City bears no responsibility for any costs associated with the preparation of the bid proposal and/or any administrative or judicial proceedings resulting from this solicitation process.

2.25 Limited Confidentiality of Information:

A. As a political subdivision of the State of Maryland, the City is governed by the Maryland Public Information Act (http://www.oag.state.md.us/Opengov/pia.htm). Only trade secrets, confidential commercial information will be exempt from disclosure. If you submit trade secret, confidential commercial, or financial information, you must segregated and label each pertinent page with the term "trade secret" or "proprietary." Do not use the word "confidential." If you submit information that you consider exempt from public disclosure, you must identify with specificity which page(s)/paragraph(s) of your bid proposal package is (are) exempt from the Maryland Public Information Act and you must identify the specific statutory exemption section that applies to each.

- B. The City will maintain the confidentiality of such trade secrets to the extent provided by law. If you label all or most pages of your bid proposal as "trade secret," the City may judge your bid as non-responsive and therefore it will not be considered for award.
- C. All material submitted becomes the property of the City and may be returned only at the City's option.
- D. Notwithstanding the language provided in this Section, the City, in its sole and absolute discretion, shall determine whether documents requested through the Maryland Public Information Act are exempt from disclosure as trade secrets, confidential commercial or financial information, or other exemption. The City shall make such determination regardless of whether the Bidder has segregated and labeled each page as directed above.

2.23 Protesting the Requirements or Award Recommendation:

- A. Any potential Bidder may protest the requirements of this IFB by submitting a written protest within FIVE business days after the Bidder received the IFB, however such protest must be submitted at least five business days before the closing date.
- B. Any proposer may protest the award of, or the decision to award, a contract to any other proposer / offeror, within FIVE business days after the award decision is announced.
- C. Any protest shall be in writing and submitted to the Purchasing Manager at the address listed in <u>Section 2.5.C.</u>
- D. The City will <u>not</u> consider a protest for any claim for reason that the selected proposer or offeror is not a responsible party, nor shall any protest be considered for any matter which the Purchasing Manager determines could reasonably have been ascertained prior to the closing date of this IFB, unless such protest shall have been filed in writing not less than three business days prior to such time.

E. Written Submission:

- a. The protester shall present its protest in a concise and logical written format to facilitate review. Failure to substantially comply with any of the requirements of this subsection may be grounds for dismissal of the protest.
- b. The protest shall include at least the following information:
 - 1. Name, address, email address, and fax and telephone numbers of the protester;
 - 2. IFB number;
 - 3. Detailed statement of the legal and factual grounds for the protest, including a description of resulting harm to the protester;
 - 4. Copies of supporting documents, if any;

- 5. Statement of relief requested;
- 6. All information establishing that the protester is an interested party for the purpose of filing a protest on an award decision;
- 7. All information establishing the timeliness of the protest.
- F. The Purchasing Manager shall decide any protest and shall issue a written finding within five business days of receipt of the protest.
- **G.** The protester may appeal the Purchasing Manager's decision to the City Manager within three business days after receipt of the Purchasing Manager's decision. The City Manager's decision shall be final and binding.

END OF SECTION II

SECTION IV - SPECIAL PROVISIONS

4.1 GENERAL

- A. These special provisions are hereby made a part of the contract. In case of conflict with the terms and conditions or the specifications of the City of Rockville, Montgomery County Government, the Washington Suburban Sanitary Commission, the Maryland State Highway Administration, the Maryland Department of the Environment or the Montgomery Soil Conservation District, these Special Provisions shall govern.
- B. Please note that the awarded Contractor is required to obtain a Noise Waiver from Montgomery County Department of Environmental Protection.

4.2 CONTRACT DOCUMENTS

- A. In addition to the requirements of <u>Section 7.19 Contract Documents</u>, in case of discrepancies in the Contract Documents and need for interpretation, the documents shall be given precedence in the following order:
 - 1. Change Orders
 - 2. Addenda
 - 3. Special Provisions
 - 4. Technical Specifications
 - 5. Contractual Terms and Conditions
 - 6. Drawings
 - 7. Standard Details
 - 8. City of Rockville Standard Details
 - 9. Applicable Standards listed below
- B. Any questions, requests for information or revisions to the specifications must be reviewed and approved by the City of Rockville.

4.3 CONTRACT TERM AND LIQUIDATED DAMAGES

- A. The awarded Contractor shall commence work within 10 work days from the date of issuance of the Notice to Proceed (NTP).
- B. The awarded Contractor shall complete all work within 180 calendar days of the date of the Notice to Proceed.
- C. Time is of the essence for this project and any delays from the agreed upon contract schedule dates will inconvenience the public and result in losses to the City. The loss and damages will be difficult to determine. By submitting a bid proposal (offer) in

response to this IFB, the Bidder specifically agrees that if awarded a contract from this IFB and if the Bidder as an awarded contractor fails to complete the contract in accordance with its specifications, requirements and times, the amount of \$400.00 up to the total value of contract shall be deducted from the monies due the awarded Bidder (Contactor) for each intervening calendar day that the contract is not completed, not as a penalty, but as liquidated damages. However, the awarded Bidder (Contactor) will not be liable if failure to perform arises out of causes beyond its reasonable control and without fault or negligence of the awarded Bidder (Contactor).

D. The City shall recover such liquidated damages by deducting the amount thereof out of any moneys due or that may become due the Contractor, and if said moneys are insufficient to cover said damages, then the Contractor or the Surety shall pay the amount due upon demand by the

4.4 COMPLETION SCHEDULE

The Contractor shall provide a bar-chart schedule at the pre-construction meeting or at such time as directed by the Chief, Construction Management Division, but not more than once per month or with any change order. In addition, the Contractor shall verbally provide updates to the Project Inspector as requested.

4.5 APPLICABLE CODES AND STANDARDS

As a minimum standard of quality workmanship, all work shall comply with the latest provisions and recommendation of the following documents in the following order of precedence. In the event of conflict, the City's determination shall govern.

- 1. City of Rockville Standards and Details for Construction, dated January 1988.
- 2. Washington Suburban Sanitary Commission, General Conditions and Standard Specifications, latest edition.
- 3. Current Montgomery County Department of Public Works and Transportation Design Standards.
- 4. Current Montgomery County Department of Permitting Services, Water Resources Division, Standard Details.
- MSHA "Standard Specifications for Construction and Materials" dated July 2008
 including all errata and addenda thereto and additions included in these special
 provisions.

- 6. MDE, WMA and SCS 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control.
- 7. American Society for Testing and Materials, "ASTM Standards", latest edition.
- 8. American Water Works Association Standards (AWWA Standards), latest edition.
- 9. American Association of State Highway and Transportation Officials, "AASHTO Standards", latest edition.
- 10. American Concrete Institute (ACI) Standards, latest edition.

4.6 PRECONSTRUCTION CONFERENCE

Upon issuance of the Notice To Proceed, the Contractor shall arrange a pre-construction meeting between the Contractor, the design engineer's representative, and appropriate City staff, including the Chief, Construction Management, Project Inspector, Sediment Control Inspector, and Public Works Project Manager. In addition, the Contractor shall invite the following agency representatives to the pre-construction meeting and shall provide at least 5 business days' notice. No compensation will be made by the City to the Contractor for meetings.

4.7 PERMITS:

No permits are required for the project.

4.8 <u>SITE CONDITIONS:</u>

The Contractor shall visit each work site prior to performing the work to verify the existing conditions.

4.9 WORK HOURS

Work on any street, other than secondary residential (generally 26 feet in width) shall be limited to 9 A.M. to 3:30 P.M. Monday through Friday. The City will not permit any work outside these hours unless prior written approval is obtained from the Chief, Construction Management Division or his designee.

4.10 ACCESS TO ADJACENT PROPERTIES

Access must be maintained to all properties abutting this project at all times. All work affecting private properties shall be coordinated with the property owner by the Contractor. The Contractor shall maintain access to private driveways at all times unless specifically approved in advance by the City.

4.11 ENTERING PRIVATE PROPERTY TO PERFORM WORK

The Contractor shall carefully examine the plans provided to ensure a clear understanding of the private property limits and work limits. Under no circumstances shall the Contractor enter beyond the specified limits or perform any work that affects private property without advance notice to and permission from the private owner and the City.

4.12 PROTECTION OF WORK, PROPERTY AND PERSONS

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with this project. All necessary precautions shall be taken: to prevent injury to the Contractor's employees and other persons who may be affected by the project; to prevent damage to or loss of materials or equipment incorporated into the project; and to protect other property at or adjacent to the site including but not limited to trees, shrubs, lawns, walks, fences, pavements, roadways, utilities, structures, buildings, playgrounds and park facilities not designated for removal, relocation, or replacement in the course of construction; to provide warning signs as directed by the City for personnel and the public. Costs associated with this work are incidental to the work and no specific payments will be made.

4.13 CONTRACTOR SUPERVISION

The Contractor shall supervise and direct all work under the contract. A qualified individual shall be designated in writing to act on behalf of the Contractor. This individual shall be present on the site at all times as required to perform adequate supervision and coordination of the work, including subcontractors. The designated representative shall be fluent in the American English language and have good communication skills.

4.14 CONTRACTOR'S EMPLOYEES

- A. The Contractor's employees shall present a professional appearance, shall be neat, clean, well groomed, courteous, and conduct themselves in a respectable manner while performing duties and while on City and/or private property.
- B. The Contractor shall provide the City with a listing of all personnel assigned to the contract. In addition, the Contractor shall provide a listing of names, and emergency telephone numbers of supervisory personnel assigned to the contract. It will be the Contractor's responsibility to keep this list up to date.
- C. The City reserves the right to request that the Contractor remove any employee if it is determined that services are not being performed in accordance with the terms and conditions of the contract.

4.15 PUBLIC UTILITIES

- A. The Contractor shall comply with MDSHA Specifications under Sections GP 5.05, and GP 7.17 regarding public utilities.
- B. It shall be the Contractor's responsibility to cooperate to the fullest possible extent with the utility owners in their work of adjusting the existing utilities to suit the proposed construction under this contract. All utilities, unless provided for on the contract drawings, shall be relocated or constructed by their respective owners.
- C. The locations of existing utilities shown on the plans and profiles are approximate only and it shall be the Contractor's responsibility to determine the exact location of the utilities prior to commencing work in all areas of possible conflict. All test pits must be completed in coordination with the City and the affected utility companies. The existence of utilities other than those shown on the plans is not known. If, during construction operations, the Contractor should encounter additional utilities, it shall immediately notify the City and take all necessary and proper steps to protect the continuance of service of such facilities.
- D. In case of any damage to utilities by the Contractor, either above or below ground, the owner shall be immediately notified. The Contractor shall arrange for restoration of such utilities to a condition equal to that which existed before the damage was done, by repairing, rebuilding, or otherwise restoring as may be directed, and at the Contractor's entire cost and expense.
- E. The Bidder (Contractor) shall take into consideration when preparing its bid the costs associated with the coordination during construction with various utility companies for any relocation or installation by the utility companies which may be necessary in areas within, or adjacent to, the limits of its contract. No additional compensation or time extensions will be allowed the Contractor for work interruptions, changes in construction sequences, changes in methods of handling excavation and drainage, and changes in types of equipment used, made necessary by others performing work within, or adjacent to, the limits of this contract. The contract time as stated in this contract includes the time needed for utility adjustments and no extension of time will be granted for delays caused by utility adjustments.
- F. All other expenses likely to be incurred by the Contractor as a result of working around and protecting utilities, as well as cooperating with the owners of same during the relocating of such facilities, will not be measured or compensated for under any stipulated pay item.

4.16 CONTACTS

A. The following utility companies and City departments may be affected by this project. It shall be the Contractor's responsibility to notify these utilities and/or City departments and coordinate its construction operations with them to avoid unnecessary delays.

1. City of Rockville

Forestry Division

Mr. Wayne Noll 301-741-3071

2. City of Rockville

Chief, Construction Management

Mr. Mike Wilhelm 240-314-8542

3. City of Rockville

Operations & Maintenance Superintendent

Mr. Steve Sokol 240 -314-8567

4. City of Rockville

Traffic and Transportation Project Manager

Mr. Andrew Luetkemeier 240-314-8524

5. City of Rockville

Water and Sewer Utilities

240-314-8567

6. Comcast Cable TV

1-800-441-6917

7. MISS UTILITY

1-800-257-7777 or 811

8. Potomac Electric Power Company

Mr. Phillip Browne 202-872-2845

9. Transcontinental Gas

410-465-0960

10. Verizon

Mr. William Handy 301-595-6151

11. Washington Gas Company

Ms. Theresa P. Avila-Curtis 703-750-4215 Mr. Scott Brown 703-750-4388

12. Washington Suburban Sanitary Commission (WSSC)

Mr. Jeff Lohrman 301- 206-8744

- B. For Locations of Utilities, call "MISS UTILITY", at 811, 1-800-257-7777 or http://www.missutility.net/ for non-City of Rockville utilities and the City of Rockville Department of Public Works Operations Maintenance Division at 240-314-8567 for City utilities and the City of Rockville Department of Public Works main line at 240-314-8500 for traffic signals, red light cameras and speed cameras.
- C. Before interfering with any utility service, the Contractor shall notify the affected utility companies and affected property owners in advance, and coordinate any required service interruption with the owner and City. For any water service shut-down, the Contractor must provide at least 21 calendar days' notice such that the City can provide proper notification.
- D. The Contractor shall be responsible for contracting Miss Utility and the City of Rockville for the location of all utilities prior to the start of work.

4.17 NOISE CONTROL MEASURES

Construction activity shall occur within the City of Rockville's standard working hours, Monday through Friday, 7:00 a.m. to 5:00 p.m. All work must comply with the noise ordinance requirements for Montgomery County. A copy of the "NOTICE TO CONTRACTORS" issued by the Montgomery County Department of Environmental Protection (DEP) is attached as Appendix A for observation and compliance.

4.18 POSTING PARKING RESTRICTION SIGNS

A. The Contractor shall be responsible for furnishing adequate personnel, equipment and sign stakes as necessary to post City furnished parking restriction signs a minimum of 48 hours and no more than 72 hours in advance of the construction operations for that particular portion of that street. The Contractor shall coordinate the schedule in advance with the City and shall mark the signs with the appropriate restriction dates. Parking may not be restricted for more than three consecutive dates without prior written City approval. Towing of parked vehicles shall be the responsibility of the Project Inspector only. Vehicles will not be towed unless the Project Inspector has verified that the proper parking restriction signs were posted a minimum of 48 hours in advance. The Contractor shall be responsible for revising the dates on the signs in the event of delays in the schedule and for the prompt removal of the signs when the construction

operation is complete. The signing operation shall be closely coordinated with the Project Inspector and no signs shall be marked, posted, revised, reposted, or removed without the Project Inspectors advanced authorization. Signs and stakes shall be carefully removed and revised and reused until otherwise authorized by the Project Inspector.

- B. Stakes shall be 2-inch x2-inch, four feet long, driven a minimum of one foot into the ground or until stable.
- C. Signs must be spaced no more than 40 feet apart. Where street trees exist and it is determined that their use will not damage the tree, the signs shall be placed approximately four feet above the ground. Where no street trees are available, signs must be placed on stakes provided by and installed by the Contractor. Black waterproof indelible markers shall be provided and used by the Contractor and numbers shall be large and legible.
- D. No special compensation shall be paid to the Contractor for the posting of the no parking signs and shall be considered incidental to the appropriate pay item.

4.19 WATER POLLUTION CONTROL MEASURES

The Contractor shall not discharge or permit discharge into the waters, canals, ditches, or drainage system any fuels, oils, bitumens, garbage, sewage or other materials which may be harmful to fish, wildlife or vegetation or that may be detrimental to outdoor recreation. The Contractor shall be responsible for investigation and complying with all applicable federal, state and local laws and regulations governing pollution of water. All work under this Contract shall be performed in such a manner that objectionable conditions will not be created in waters through or adjacent to the project areas.

4.20 <u>AIR POLLUTION CONTROL MEASURES</u>

The Contractor shall cover all fine-grained, loose materials hauled to or from this project to prevent spillage and blowing. Material, which is not covered after notification by the City, will not be accepted for use on this project. This material will not be included in measurement for payment. Burning will not be permitted.

4.21 ENVIRONMENTAL PROTECTION MEASURES

The Contractor shall place impervious barriers, (i.e., plastic, metal drip pans, etc under any compressors, generators, welding machines, etc., to prevent oils, solvents, organic compounds, or other contaminants from leaching into the soil. Any oils, solvents, organic compounds, or contaminants spilled on the site during the process of the work shall be immediately removed and cleaned up by the Contractor. Any earth contaminated by a spill shall also be removed and replaced with new certified clean material to the satisfaction of the City and the Maryland Department of the Environment (MDE). If the City has to remove the oils, solvents, organic

compounds, contaminants, or earth, the City may deduct the costs of removal and clean up from the total contract amount owed the Contractor.

4.22 EROSION AND SEDIMENT CONTROLS

- A. The Contractor shall adhere to the City's laws and ordinances regarding sediment control. The Contractor shall be responsible for coordinating all work, and for notifying the City:
 - 1. Prior to removing sediment control facilities; and
 - 2. Upon completion of final grading, establishment of ground covers and approved land stabilization.
- B. During the progression of all work, the Contractor shall make periodic inspection and maintain sediment control structures, including cleaning as directed or necessary, to insure that the intended purpose is accomplished. Under no circumstances shall sediment be allowed to enter private properties or existing stream.
- C. When directed in the field by the Project Inspector, the Contractor shall be required to make adjustments in location and/or increase or decrease quantities of sediment control measures and provide temporary stabilization measures.
- D. The Contractor shall install and maintain all sediment control measures as shown on the Contract Documents, approved plans and details per latest City of Rockville Standards, Maryland Department of the Environment's 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control, in compliance with the MDE/WMA Notice of Intent (NOI) General Permit for construction activities, and as directed by the Project Inspector. Please refer to Maryland Department of Transportation, State Highway Administration's Specifications entitled, "Standard Specifications for Construction and Material" dated July 2008, revisions thereof, or additions thereto. The Contractor shall comply with MSHA specifications section 308.02 Material and section 308.03 Construction.
- E. The Contractor shall furnish and install temporary erosion and sediment controls. The Contractor shall protect the integrity of the erosion control measures installed. The erosion control measures shall be provided until such times as the temporary ground cover is sufficiently developed and the Project Inspector gives written authorization to remove said measures. The Contractor shall comply with all local, state and federal laws, ordinances, and regulations pertaining to erosion, sediment and pollution control, including those promulgated by the State of Maryland, and shall indemnify and hold harmless the City from and against all claims, damages, losses and expenses resulting from such work.
- F. The Contractor shall have an employee present on site at all times who has met the requirements for certification of responsible personnel in erosion and sediment control according Maryland

State Law (Green Card). This employee shall have sufficient authority to install, maintain, adjust or otherwise implement approved sediment control measures.

- G. The Contractor shall take all measures to control erosion and sedimentation at construction site, including borrow and waste areas and temporary access roads, and at off-site areas especially vulnerable to damage from erosion and sedimentation. All erosion and sediment control measures will be subject to approval by the City. All erosion and sediment control measures shall be implemented prior to any construction occurring. All temporary erosion and sediment control measures shall be removed within 30 days after completion of construction and establishment of permanent erosion control.
- H. Work shall be scheduled so that areas subject to erosion are exposed for the shortest possible time. Only those trees, shrubs and grasses shall be removed that are necessary for construction as designated by the forest conservation plan; those remaining shall be protected to preserve their aesthetic and erosion control values. Temporary on-site structures and buildings shall be located to preserve the existing landscape and to minimize erosion, including that from construction traffic. If practicable, work shall be scheduled in seasons when erosion is less of a hazard, particularly for sites with steep slopes and erodible soils.
- I. Temporary protection shall be required for disturbed areas until final grading is completed and permanent vegetation is established, and shall consist of planting temporary grass cover or other vegetation when feasible. Other short-term protection shall include covering disturbed areas and topsoil piles with a mulch of hay, stray or wood chips, stabilizing with netting, or covering with plastic sheets. Graded slopes and fills shall be limited to an angle and to lengths that will maintain stability and allow easy maintenance. Construction equipment shall not be operated in a way to make the land more susceptible to erosion, such as leaving tracks up and down slopes. Access roads shall be located and constructed so as to prevent erosion.
- J. The Contractor shall construct controls for surface water runoff as early as possible to prevent the formation of gullies or rills. The Contractor shall maintain these controls during the entire construction period or until permanent storm drains/revetments are completed. Diversion channels or berms, slope drains, flow barriers, dikes or other structures, which retard or spread water flow, shall control runoff. Compacted embankments, ditches, furrows or temporary diversions across slopes shall be provided to intercept runoff before it reaches erodible areas. Diversions and drains shall be directed into stabilized areas where the discharge can be spread out and dissipated.
- K. If unusually intense storms cause planned control measures to fail, the Contractor shall make prompt restoration and cleanup of sediment deposits, including damage to adjacent property. If construction is delayed or shut down, the Contractor shall provide temporary cover of exposed and disturbed areas.

4.23 PRESERVATION AND RESTORATION OF PROPERTY, TREES & MONUMENTS

- A. The Contractor shall carefully examine the plans provided with the contract drawings to ensure a clear understanding of the private property limits and work limits. The Contractor shall not enter upon private property for any purpose without first obtaining permission from the City and written permission from the property owner. The Contractor shall be responsible for the preservation of all public and private property, trees, monuments, markers, and fences, along and adjacent to the work areas, and shall use every precaution necessary to prevent damage or injury thereto. The Contractor shall take suitable precaution to prevent damage to underground or overhead public utility structures and must protect carefully from disturbances or damages all land monuments and property markers until the Inspector has witnessed or otherwise referenced their locations. All disturbed monuments and markers must be reset to their correct location by the Contractor at no additional compensation.
- B. The Contractor shall be responsible for all damages or injury to public or private property of any character during the prosecution of the work, resulting from any act, omission, neglect or misconduct in its manner or method of executing said work satisfactorily, or due to the non-execution of said work, or at any time due to defective work or materials. When or where any direct or indirect damage or injury is done to public or private property or on account of any act, omission, neglect or misconduct in the execution of the work or in consequence of the non-execution thereof on the part of the Contractor, the Contractor must restore, at its own expense, such property to a condition similar or equal to rebuilding or otherwise restoring as may be directed by the City, or the Contractor shall make good such damage or injury in an acceptable manner. In case of the failure on the part of the Contractor to restore such property or make good such damage or injury the City may, upon 24 hours' notice, proceed to repair, rebuild or otherwise restore such property as may be deemed necessary and the cost thereof will be deducted from any monies due or which may become due the Contractor under this Contract. City crews or another contractor may accomplish said work.
- C. After the completion of the project, the Contractor shall restore to the same condition or better any plants (trees, shrubs, and seasonal vegetation), lawns, walks, fences, pavements, roadways, utilities, structures, buildings, playgrounds and park facilities and other facilities not designated for removal, relocation or replacement that are damaged by the Contractor's actions or inactions. Prior to any construction activities, it is the Contractor's responsibility to document any existing damage or conditions indicative of substandard facilities. The Contractor shall provide pre-project photographs or video of the project work areas to the DPW Project Inspector. Costs associated with this documentation work are incidental to the work and no specific payments will be made.
- D. The Contractor shall give special attention to the existing landscape features and the Contractor shall take special care to protect the natural surroundings. The roots of such trees or shrubbery will not be cut unnecessarily. The Contractor will be required to root prune the roots of trees, which extend into grading limits and/or from trees intended to be left in an undamaged state or otherwise prevent damage to roots of trees. No road machinery of any description, which might

throw off gas or smoke in such volume as to damage vegetation, shall be allowed to stand under such trees or shrubbery. All roots over 1 inch diameter must be cleanly cut with a saw or other pruning instrument. Root cutting trench will be immediately backfilled. Root pruning will occur prior to any grading activities and must be done by a Maryland Licensed Tree Expert (L.T.E) and ISA Certified Arborist (C.A.)

- E. Any tree that in the opinion of the City, may be defaced, bruised, injured or otherwise damaged by the Contractor's equipment or operations must be protected prior to the start of work by boards, planks, fencing or other means acceptable to the Inspector and no separate payment must be made. The City in conjunction with the contractor and tree removal contractor shall flag and paint all trees to be removed prior to construction. Contractor must verify all saved trees prior to construction. All precautions shall be at the expense of the Contractor. Tree protection techniques must be in accordance with the State Forest Conservation Manual.
- F. Any tree, or landscape features scarred or damaged by the Contractor's operations must be removed, correctively pruned, restored or replaced as nearly as possible to the original conditions, as required by the Project Inspector and at the Contractor's expense. No ropes, cables or guys shall be fastened to or attached to any nearby trees for anchorage or in lieu of placing of dead men, unless specifically authorized by the Project Inspector in which special emergency use the Contractor will first wrap the trunk with a sufficient thickness of burlap or rags, over which soft wood cleats shall be tied, before any wire cable or rope is placed. The Contractor shall in any event be responsible for any damage to any tree due to this use and must repair any such damage.
- G. All of the requirements outlined in the above paragraphs shall be considered incidental to this contract and no special compensation shall be paid.

4.24 INSPECTION AND CERTIFICATION

All materials shall be subject to inspection or test by the City prior to installation and no previous certification or inspection shall bar rejection if the material is found to be damaged or defective. The certification requirements may be waived for any or all of the materials at the discretion of the City.

4.25 <u>INSPECTION AND REPAIRS</u>

The City reserves the right to inspect any and all work either in progress or completed. All work shall be inspected prior to backfill. Any portion of the work that is backfilled prior to inspection shall be uncovered at the Contractor's expense to enable the Project Inspector to adequately inspect. If the work is found to be unsatisfactory or in conflict with the provisions in these specifications the City may hold back payment for work completed. The Chief, Construction Management will give written notification of the unsatisfactory work to the Contractor. The Contractor shall have no more than 10 days to correct the condition.

4.26 SUBMITTALS OF MATERIALS

The Contractor shall submit two copies of all delivery tickets, shop drawings, inspection, testing or certification reports, obtained approvals or permits, and other submittals required for this project to Mike Wilhelm, Chief of Construction Management for Rockville Department of Public Works.

4.27 DAILY CLEAN-UP

- A. The Contractor shall at all times keep the work areas clean and orderly and shall promptly remove all waste and rubbish. The daily debris shall be collected in covered containers and disposed of in proper fashion. All directions from authorized public officials having jurisdiction over health and safety shall be obeyed. The site will be "broom clean" at the end of each working shift. Open excavations may not be left unattended. Site must be secured each night.
- B. Upon completion of the work, all materials, equipment, and appurtenances not required, as a part of the finished project shall be completely removed the site.
- C. The Contractor shall clean every street upon which any work has been performed under this contract on a daily basis. The cleanup shall be accomplished by use of a vacuum assisted sweeper truck, manual (push) broom sweeping or other method as directed and or approved by the Project Inspector. Under no circumstance shall the contractor use compressed air or jet water sprays for cleanup purposes.

4.28 <u>CONTRACTOR'S STAGING AND STORAGE</u>

- A. The Contractor will establish temporary staging areas as approved by the City. Cleanup of each staging area shall occur daily. The Contractor shall cover topsoil, stone, and aggregate stockpiles with tarps to prevent sedimentation of the street.
- B. The Contractor shall submit a sketch (a marked up set of plans is acceptable) and brief description for approval by the Chief, Construction Management showing the location of equipment and materials, location of portable sanitary toilet, and means and methods to protect pedestrians and existing public facilities (including trees) within the area as shown on the plans. This plan may have to be approved by the City Forester, if any grassed or tree areas will be utilized.
- C. There shall be no payment for this work. It shall be considered incidental to the contract.

4.29 AERIAL ELECTRIC LINES

The Contractor must be aware that State law requires that a 10-foot radial clearance be maintained for all construction equipment and materials in relation to electric lines carrying 750 volts or more. Because the State law is more stringent than the Federal laws, the State law shall be considered the minimal distance.

4.30 Sampling and testing of materials

- A. The City reserves the right to test all materials and construction separate from and in addition to the specific requirements dictated in the contract. Testing shall be generally limited to:
 - 1. Taking and/or collecting samples of soil and/or other backfill materials for proctor tests;
 - 2. Performing proctor tests in a lab;
 - 3. Performing compaction tests on site;
 - 4. Taking concrete cylinder samples and testing compression strength;
 - 5. Asphalt sampling and compaction testing.
- B. Employment of a testing agency in no way relieves the Contractor of its responsibility and obligation to comply with all aspects of the contract and to perform all work in a proper, acceptable and workman like manner and doing all such work in full compliance with the contract documents.

4.31 DISPOSAL OF MATERIALS

All excess or removed materials from excavation operations shall become the property of the Contractor and shall be removed from the site and legally disposed off-site. Burning or burial of materials on site is <u>not</u> permitted.

4.32 TECHNICAL CONTACT/PROJECT MANAGER

Questions following contract award should be addressed to:
Andrew Luetkemeier,
Traffic and Transportation Project Manager
111 Maryland Avenue
Rockville, MD 20850
240-314-8524
aluetkemeier@rockvillemd.gov

END OF SECTION IV

SECTION V – STATE HIGHWAY ADMINISTRATION SPECIAL PROVISIONS

CATEGORY 100 PRELIMINARY

SECTION 101 — CLEARING AND GRUBBING

101.01 CLEARING AND GRUBBING 101.04 MEASUREMENT AND PAYMENT.

<u>DELETE</u>: The in its entirety.

<u>INSERT</u>: The following.

Clearing and Grubbing will not be measured but the cost will be incidental to the Lump Sum item for

Maintenance of Traffic. The payment will be full compensation for all materials, labor, equipment, tools,

and incidentals necessary to complete the work.

CATEGORY 100 PRELIMINARY

SECTION 104 — MAINTENANCE OF TRAFFIC 104.01 TRAFFIC CONTROL PLAN (TCP) 104.01.01 DESCRIPTION.

<u>DELETE</u>: The fourth paragraph sentence "Refer to contract Documents for Work Restrictions." in its entirety.

INSERT: The following.

Work Restrictions. The Engineer reserves the right to modify or expand the methods of traffic control or working hours as specified in the Contract Documents. Any request from the Contractor to modify the work restrictions shall require written approval from the Engineer at least 72 hours prior to implementing the change. The Contractor shall submit a copy of the original work restrictions with the written request.

Work is not permitted on Saturdays or Sundays.

Work is not permitted on the holidays, or work day preceding and following holidays indicated below with an "X":

- New Year's Day, January 1

 Martin Luther King's Birthday, the third Monday in January
 President's Day, the third Monday in February
 Good Friday
 Easter Weekend
 Memorial Day, the last Monday in May
 Independence Day, July 4
 Labor Day, the first Monday in September
- Thanksgiving Day, the fourth Thursday in November
- Christmas Day, December 25

TEMPORARY LANE OR SHOULDER CLOSURE SCHEDULE				
ROADWAY	# LANE(S) / SHOULDER CAN BE CLOSED	DAY OF THE WEEK	CLOSURE PERIOD (TIME OF DAY)	
All Roadway	1 / N/A*	Monday through Friday	9 AM to 3 PM	
	* There are no shoulders on the project			
	roadways			

ADD: The following after the last paragraph, "Any monetary savings...and the Administration." When closing or opening a lane on freeways, expressways, and roadways with posted speed ≥ 55 mph, a work vehicle shall be closely followed by a protection vehicle (PV) during installation and removal of temporary traffic control devices. The PV shall consist of a work vehicle with approved flashing lights, either a truck-mounted attenuator (TMA) with support structure designed for attaching the system to the work vehicle or a trailer truck-mounted attenuator (TTMA) designed for attaching the system to the work vehicle by a pintle hook and an arrow panel (arrow mode for multilane roadways and caution mode on two-lane, two-way roadways).

The work vehicle size and method of attachment shall be as specified in the TMA/TTMA manufacturer's specification as tested under NCHRP and/or MASH Test Level 3.

When a temporary lane or shoulder closure is in effect, work shall begin within one hour after the lane is closed. Any delay greater than one hour with no work in progress shall require the Contractor to remove the lane/shoulder closure at no additional cost to the Administration. The Contractor's Traffic Manager shall attend Pre-Construction and Pre-Paving Meetings and shall discuss traffic control and the Traffic Control Plan including procedures to be implemented for lane closures.

All closures shall be in conformance with the approved TCP and under the direction of the Contractor's Traffic Manager and the Engineer.

Workers and equipment, including temporary traffic control devices needed for setting up a lane closure or restriction, are prohibited in the lane/shoulder to be closed or restricted before the time permitted in the Contract work restrictions, unless otherwise noted below or as approved by the Engineer.

Temporary traffic control devices to be used for lane/shoulder closure may be placed on the shoulder of the roadway by workers no earlier than __ minutes prior to actual time lane/shoulder closure or restriction is permitted. When temporary traffic control devices are being installed, all work vehicles involved in the installation shall display flashing lights that provide a 360-degree visibility of the vehicles. These lights shall remain on until the full installation of TTC devices is complete. Temporary traffic signs may be displayed to traffic at this time.

Workers shall not enter a lane open to traffic. Workers may be present on shoulders to prepare for lane closure setup no earlier than _ minutes prior to actual time lane/ shoulder closure or restriction is permitted. During preparation for the lane closure, all work vehicles present at the site and involved in the installation of the lane closure or restriction shall display flashing lights that provide 360-degree

visibility of the vehicles. These lights shall remain on until the full implementation of the road closure or restriction is complete.

All temporary lane or shoulder closures shall be restored at the end of the closure period and no travel lane shall be reduced to less than 11 ft on expressways, freeways and 10 ft on other roadways. Prior to opening the closed lane or shoulder, the Contractor shall clear the lane or shoulder of all material, equipment, and debris.

Failure to restore full traffic capacity within the time specified will result in a deduction being assessed on the next progress estimate in conformance with the following. This is in addition to the requirements specified in TC-4.02.

The designer shall identify the District (for freeways) or determine the Level of Service of the roadway (for other roads) and include the assessed deduction tables accordingly. All unnecessary tables should be deleted.

Level of Service may be determined by using the Congestion Assessment Maps obtained online at http://shavmhisdwma/congestionassessmentintroduction/Default.aspx

The lane closure penalties for freeways are categorized by the District in which they are located. For Districts 1, 2 and 6, the following fee structure will be followed:

ASSESSED DEDUCTIONS FOR FREEWAYS				
ELAPSED TIME, (MINUTES)	DEDUCTION			
For 1 Lane Closures				
1-10	\$ 100.00			
Over 10	\$50.00 per minute			
Over 10	(In addition to the original 10 minute deduction)			
For 2 or more Lane Closures				
1 – 10	\$ 200.00			
Over 10	\$100.00 per minute			
OVEL TO	(In addition to the original 10 minute deduction)			

For Districts 3 (includes the City of Rockville), 4, 5 and 7, the following fee structure will be followed:

ASSESSED DEDUCTIONS FOR FREEWAYS				
ELAPSED TIME, (MINUTES)	DEDUCTION			
For 1 Lane Closures				
1 – 10	\$ 1,000.00			
Over 10	\$500.00 per minute			
Over 10	(In addition to the original 10 minute deduction)			
For 2 or more Lane Closures				
1 – 10	\$ 2,000.00			
Over 10	\$1,000.00 per minute			
OVEL TO	(In addition to the original 10 minute deduction)			

The lane closure penalties for other roads are categorized by intersection Level of Service. The penalty for other roads with Level of Service D, E or F is greater than that for Level of Service A, B or C. For Level of Service A, B or C, the following fee structure will be followed:

ASSESSED DEDUCTIONS FOR OTHER ROADS			
ELAPSED TIME, (MINUTES)	DEDUCTION		
For 1 Lane Closures			
1 – 10	\$ 150.00		
Over 10	\$75.00 per minute		
	(In addition to the original 10 minute deduction)		
For 2 or more Lane Closures			
1 – 10	\$ 300.00		
Over 10	\$150.00 per minute		
	(In addition to the original 10 minute deduction)		

For Level of Service D, E or F, the following fee structure will be followed:

ASSESSED DEDUCTIONS FOR OTHER ROADS			
ELAPSED TIME, (MINUTES)	DEDUCTION		
For 1 Lane Closures			
1 – 10	\$ 300.00		
Over 10	\$150.00 per minute		
	(In addition to the original 10 minute deduction)		
For 2 or more Lane Closures			
1 – 10	\$ 600.00		
Over 10	\$300.00 per minute		
	(In addition to the original 10 minute deduction)		

CATEGORY 100 PRELIMINARY SECTION 104 — MAINTENANCE OF TRAFFIC

104.07 ARROW PANEL (AP).

104.07.01 DESCRIPTION.

<u>DELETE</u>: The second and third paragraphs "Furnish APs that are.....units unless otherwise specified" and "APs shall have bothdimmer device is operational.

104.07.03 CONSTRUCTION.

ADD: The following after the first paragraph.

Furnish APs that are self-contained, vehicle-mounted or portable, and approved. Use self-contained trailer units unless otherwise specified.

Provide APs that have both manual and automatic dimmer devices capable of reducing the light intensity by 50 percent. Periodically clean the photocells in order to prevent malfunctioning of the brightness control. Dimmer devices are mandatory during night operation. The devices shall include a fail-safe system that ensures maximum brightness during daytime operations and a reduction in brightness of up to 50 percent during periods of darkness, regardless of which dimmer device is operational.

The AP's shall provide full illumination within at least a 24-degree cone perpendicular to the panel face.

Power Supply. The AP shall operate from a solar powered electrical system and consist of battery power and solar array panels, and be capable of providing power supply to the AP for 21 consecutive days without auxiliary charge.

ADD: The following after the Arrow Panel Lamp Options table.

Arrow Board Type	Minimum Size	Minimum Legibility	Minimum Number
Arrow Board Type		Distance	of Elements
A	48x24 in.	½ mile	12
В	60x30 in.	¾ mile	13
С	96x48 in.	1 mile	15
D	None*	½ mile	12

^{*} Length of arrow equals 48 in. width of arrowhead equals 24 in.

DELETE: (b) "Aim the AP at approaching......that the display is level".

INSERT: (b) "Aim the AP at approaching traffic in conformance with the minimum legibility distances specified above. Ensure that the display is level"

104.07.04 MEASUREMENT AND PAYMENT.

DELETE: The first paragraph in its entirety

INSERT: The following:

Arrow Panels will be not measured but shall be incidental to the Maintenance of Traffic Lump Sum item.

SECTION 104.08 — TEMPORARY TRAFFIC SIGNS

104.08 TEMPORARY TRAFFIC SIGNS (TTS) 104.08 MEASUREMENT AND PAYMENT.

DELETE: This section in its entirety.

INSERT: The following.

Temporary traffic signs will be not measured but will be incidental to the Maintenance of Traffic Lump Sum item. The payment will be full compensation for furnishing the signs and supports, installation, relocation, maintenance, cleaning, replacement due to non-traffic damage and normal wear, removal, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

Where signs have been set and damaged by traffic and the Engineer determines that they are not repairable, replacement will be measured and paid for at the Contract unit price.

When no longer needed, temporary traffic signs and all associated materials and incidentals shall be removed from the project site and become the property of the Contractor.

SECTION 104 — MAINTENANCE OF TRAFFIC 104.12 DRUMS FOR MAINTENANCE OF TRAFFIC.

104.12.02 MATERIALS.

169 **ADD:** The following to the end of the first paragraph.

Drums may include recycled plastic content. The drum base may contain up to 100 percent recycled content.

104.12.03 CONSTRUCTION.

ADD: The following to the end of the third paragraph.

Damaged drums shall be recycled to the extent possible. The disposition of the damaged drums shall be provided prior to payment for any replacement drums.

104.12.04 MEASUREMENT AND PAYMENT.

DELETE: This section in its entirety.

INSERT: The following:

Drums for Maintenance of Traffic will be not measured but will be incidental to the Maintenance of Traffic Lump Sum unit price. The payment will be full compensation for relocation, removal, replacement due to damage by traffic, and all material, labor, equipment, tools, and incidentals necessary to complete the work.

SECTION 104 — MAINTENANCE OF TRAFFIC

104.14 CONES FOR MAINTENANCE OF TRAFFIC. 104.14.02 MATERIALS.

<u>DELETE:</u> First paragraph on this page "Cones shall be...an upright position".

INSERT: The following.

All cones shall meet MdMUTCD and be new or like new condition. All cones shall be orange in color. Cones shall be at least 28 in. high, 10 in. diameter at the inside of the base, and reflectorized with two white retroreflective stripes. The top stripe shall be 6 in. wide and located 3 to 4 inches from the top of the cone. The second stripe shall be 4 in. wide and located 2 inches below the top band.

Tall-Weighted Cones. When specified, tall-weighted cones shall be at least 42 in. high and 7 in. diameter at the inside of the base. Tall-weighted cones shall be manufactured of low density polyethylene (LDPE) and have four high performance wide angle white and orange retroreflective stripes. The stripes shall be horizontal, circumferential and 6 in. wide. Alternate stripe colors with the top stripe being orange. Any nonretroreflective spaces between the orange and white stripes shall not exceed 1/2 in.

104.14.03 CONSTRUCTION.

ADD: The following after the first paragraph "The Contractor's name...away from traffic".

Equip all cones with approved weights or anchor collars, (15 lb maximum) as needed to maintain an upright position. Anchor collars shall fit to the base of the cone. For tall-weighted cones use anchor collars weighing 10 to 30 lb.

SECTION 104.19 — PORTABLE VARIABLE MESSAGE SIGNS (PVMS) 104.19 PORTABLE VARIABLE MESSAGE SIGNS (PVMS)

The use of PVMS is not required for the work under this contract. The contractor shall submit a written request to the engineer for approval at least 72 hours in advance of the work if a PVMS is required.

CATEGORY 100
PRELIMINARY
SECTION 104.23 — PROTECTION VEHICLE
104.23 PROTECTION VEHICLE

The use of a protection vehicle is not required for the work under this contract. The contractor shall submit a written request to the engineer for approval at least 72 hours in advance of the work if a protection vehicle is required.

CATEGORY 100 PRELIMINARY SECTION 104 — MAINTENANCE OF TRAFFIC

104.31 ACCESSIBLE PEDESTRIAN MAINTENANCE OF TRAFFIC.

104.31.01 DESCRIPTION. Provide and maintain an accessible pedestrian route, to the "maximum extent feasible", throughout the project's limits. When an existing pedestrian access route within the public right of way is blocked by construction, alteration, or maintenance activity, an alternate accessible pedestrian route shall be provided.

The phrase to the "maximum extent feasible" applies in areas where the nature of an existing facility or site conditions makes it virtually impossible to comply fully with applicable accessibility standards through a planned alteration. In these circumstances, the alternate accessible pedestrian route shall provide the maximum physical accessibility that is feasible, or a design waiver must be approved by SHA's Office of Highway Development.

104.31.02 MATERIALS. Not applicable

104.31.03 CONSTRUCTION. The following considerations shall be taken into account when addressing accessible pedestrian maintenance of traffic:

- (a) All pedestrians, including persons with disabilities, shall be provided with a reasonably safe, convenient and accessible path that replicates as much as practicable the existing pedestrian facilities.
- **(b)** The width of the existing pedestrian facility should be maintained if practical. When it is not possible to maintain a minimum width of 60 in. throughout the entire length of the pedestrian route, a minimum width of 36 in. shall be provided with 60 x 60 in. passing zones at least every 200 ft, to allow individuals in wheelchairs to pass.
- (c) Traffic control devices and other construction materials and features shall not intrude into the usable width of the sidewalk, temporary pathway or other pedestrian facility.
- (d) Signs and other devices mounted lower than 7 ft above the temporary pedestrian pathway shall not project more than 4 in. into accessible pedestrian route.
- (e) A smooth, continuous hard surface shall be provided throughout the entire length and width of the pedestrian route throughout construction. There shall be no curbs or vertical elevation changes greater than 1/4 in. in grade or terrain that could cause tripping or be a barrier to wheelchair use. Vertical elevation differences between 1/4 in. and 1/2 in. shall be beveled at a maximum 2:1 slope.
- (f) When channelization is used to delineate a pedestrian pathway, a continuous detectable edging should be provided throughout the length of the facility such that pedestrians using a white cane can follow it. Edging should protrude at least 6 in. above the surface of the sidewalk or pathway with the bottom of the edging a maximum of 2.5 in. above the surface
- (g) Temporary ramps shall be provided when an alternate pedestrian route crosses a curb and no permanent ramps are in place. The width of the ramp shall be a minimum of 36 in. and the slope of the ramp shall not exceed 12:1. Temporary detectable warning mats must be installed at street crossings and signalized entrances.

- (h) When possible, an accessible pedestrian route shall be provided on the same side of the street as the disrupted route. When it is not feasible to provide a same-side accessible pedestrian route an accessible pedestrian detour route shall be provided.
- (i) Information regarding closed pedestrian routes, alternate crossings, and sign and signal information shall be communicated to pedestrians with visual disabilities by providing devices such as audible information devices, accessible pedestrian signals or barriers and channelizing devices that are detectable to the pedestrians traveling with the aid of a white cane or who have low vision.
- (j) It is desirable that pedestrians cross to the opposite side of the roadway at intersections rather than mid-block. Appropriate signing shall be placed at the intersections.
- (k) Access to transit stops shall be provided and maintained at all times.

104.31.04 MEASUREMENT AND PAYMENT. Unless otherwise specified, Accessible Pedestrian Maintenance of Traffic will not be measured but the cost will be incidental to the Lump Sum item for Maintenance of Traffic. The payment will be full compensation for all materials, labor, equipment, tools, and incidentals necessary to complete the work.

CATEGORY 200 GRADING

SECTION 206 — REMOVAL OF EXISTING PAVEMENT, SIDEWALK, PAVED DITCHES, CURB, OR COMBINATION CURB AND GUTTER

206.01 CLEARING AND GRUBBING

206.01 DESCRIPTION.

INSERT: The following.

Sidewalk shall include concrete, paver (including brick pavers) sidewalks.

206.02 MATERIALS. INSERT: The following.

Topsoil Section 705.02 Turfgrass Sod Section 708.02

206.02 CONSTRUCTION.

INSERT: The following.

Topsoil Section 705.03 Turfgrass Sod Section 708.03

206.04 MEASUREMENT AND PAYMENT.

206.04.04

<u>DELETE</u>: The last paragraph in its entirety.

INSERT: The following.

When sidewalk is removed but not replaced, backfilling, 4" topsoil, turf grass sod and landscaping as directed by the Engineer will not be measured but shall be incidental to the unit price for removal of existing sidewalk.

CATEGORY 500 PAVING SECTION 556 — PREFORMED THERMOPLASTIC PAVEMENT MARKINGS

556.01 DESCRIPTION. Furnish and install heat applied preformed thermoplastic pavement marking symbols, legends, and lines as specified in the Contract Documents or as directed by the Engineer. **556.02 MATERIALS.**

Preformed Thermoplastic is a durable pavement marking material. All Preformed Thermoplastic Pavement Marking material shall be selected from the Qualified Products List.

Heat Applied Permanent Preformed

Thermoplastic Pavement Marking Material

951.06

556.03 CONSTRUCTION.

556.03.01 Quality Assurance/Quality Control. Section 549.

556.03.02 Application. The location, width, and type of marking, shall be as specified in the Contract Documents or as directed by the Engineer.

Applying pavement markings over longitudinal joints is prohibited; they shall preferably be offset 2 in. from them.

Thermoplastic Pavement Marking shall conform to the following:

- (a) Temperature. The markings shall be applied when the thermoplastic, ambient, and surface temperature, and relative humidity conform to the manufacturer's recommendations.
 (b) Color. The color of the dry markings shall match Federal Standard 595 (13538 yellow or 17886 white). The Contractor shall supply the specified color chips for the Engineer's use to visually determine that the thermoplastic material matches the specified color.
- (c) **Primer.** When specified by the manufacturer, a primer shall be used if thermoplastic is applied to Portland cement concrete.
- (d) **Retroreflectance.** The minimum retroreflectance shall be 150 millicandelas/lux/square meter for yellow and 250 millicandelas/lux/square meter for white as determined in conformance with 549.03.

556.03.05 Packaging. The material shall be handled for shipping, unloading and storage as recommended by the manufacturer. Each shipping package shall be marked with the following information:

- (a) Manufacturer's name.
- (b) Description of item.
- (c) Date of manufacture.
- (d) Contractor's name.
- (e) Purchase order number.
- **(f)** Lot number.
- (g) Color.

556.04 MEASUREMENT AND PAYMENT. The payment will be full compensation for all pavement preparation, furnishing and placing of markings, testing, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

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Preformed Thermoplastic Pavement Marking Legends (letters and numbers) and Symbols will be measured and paid for at the Contract unit price per square foot. The square foot pay quantity for Legends (letters and numbers) and Symbols will be as specified in the Administrations Standard Details Preformed Thermoplastic Pavement Marking lines will be measured and paid for at the Contract unit price per linear foot for the color and width specified.

CATEGORY 500

PAVING

SECTION 565 — REMOVAL OF EXISTING PAVEMENT MARKINGS

565.01 DESCRIPTION. Remove existing pavement markings (lines, letters, numbers, arrows, and symbols) during temporary or permanent traffic shifts, and repairing any roadway areas damaged during the removal process. This Specification does not apply to raised or recessed pavement markers. Temporary blackout tape shall be applied when existing pavement markings will require salvaging for reuse after completion of temporary traffic shifts necessary to perform work specified in the Contract Documents. Refer to 104.11.02.

565.02 MATERIALS. Not applicable.

565.03 CONSTRUCTION. The Contractor shall layout and apply all new pavement markings (temporary or permanent) as specified in Section 549 before any removal of existing pavement markings begin.

565.03.01 Quality Control/Quality Assurance. At least two weeks prior to the start of pavement markings removal, the Contractor shall submit a Quality Control Plan (QCP) to the Engineer for review. The QCP shall contain (as a minimum) the following information:

- (a) How the Contractor proposes to perform the work while ensuring conformance with the Specifications.
- (b) Proposed method of removal based on road conditions, type and number of equipment to be used, manpower expectations, and time frame to complete the work based on maintenance of traffic (MOT) restrictions.
- (c) Location and quantity of markings to be removed.
- (d) Protective shielding plan and containment system, particularly in the case of markings that may contain toxic materials.

The QCP shall also detail when, how, and what corrective actions will be taken for unsatisfactory construction practices and deviations from the Contract Documents. Any deviation from the QCP shall be cause for immediate suspension of work. Operations shall not resume without the Engineer's approval. **565.03.02 Quality Control Test Strip.** Prior to the beginning of work, the Contractor shall demonstrate the removal method to the Engineer for approval. A minimum of 100 ft of existing pavement markings shall be removed as a test strip at a location determined by the Engineer. If the method does not work or shows signs of damaging the road surface, then another method shall be tried. Additional control strips will be required. The preferred method is that which least damages the roadway and completely removes the markings.

565.03.03 Methods of Removal. The following removal methods are based on the pavement condition and type of marking material:

- (a) Manual. A scraper or putty knife shall be used to lift tape from the pavement surface. Open flame for tape removal is prohibited.
- **(b) High Pressure Water Blasting.** A high pressure water blast shall be used to break the bond between the marking material and the pavement surface. The water blast may contain fine grit.
- **(c) Alternate Methods.** Abrasive blasting or grinding methods shall be submitted for approval to the Office of Materials Technology prior to use.

565.03.04 Cleaning Pavement Surfaces. Immediately behind the removal operation, a vacuum equipped street sweeper capable of removing all loose material shall be used to remove all dust and debris generated by the removal process prior to returning the area to traffic. The Contractor shall prevent debris from draining into inlets and waterways, and all debris shall be collected and disposed of on an approved spoil area or landfill.

565.03.05 Alignment. Removal shall be performed in a straight and uniform manner, and shall follow the longitudinal alignment of the markings with a lateral deviation of no more than 1 in. in any 10 ft section. Affected area shall not exceed 1/2 in. on either side of the existing marking. The depth shall be uniform throughout, 1/8 in. or less, with no gouge areas in the pavement surface. If a second pass is necessary to completely remove the markings, the edges of the groove shall be feathered to a width of 1.25 in. on each side for every additional 1/8 in. of depth.

565.03.06 Corrective Action. Any pavement surface damaged beyond the requirements specified herein by the Contractor's operations shall be repaired or repaved as determined by the Engineer at no additional cost to the Administration.

565.04 MEASUREMENT AND PAYMENT. The payment will be full compensation for the removal of the markings, pavement clean up, test strips, protective shielding, containment, disposal of marking material and pavement debris, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

Removal of the existing pavement markings will be measured and paid for at the Contract unit price for one or more of the following items:

- (a) Removal of Existing Pavement Marking Lines per linear foot, any width.
- (b) Removal of Existing Pavement Marking Letters, Symbols, Arrows, and Numbers per square foot.

CATEGORY 600 SHOULDERS RESET BRICK PAVERS DESCRIPTION.

This item of construction shall include, but is not limited to, the furnishing of all labor, materials, equipment, services for and incidentals to the reinstallation and/or replacement of all brick paving and precast concrete pavers removed and salvaged, or damaged during installation of the Pedestrian Signal Poles and conduit. The bricks and precast concrete pavers shall be set upon a concrete supported bituminous setting bed, and match the existing patterns and colors found at each project site. Work under this section shall include the concrete base, bituminous setting bed, and paver edge restraint. Additionally, this item shall include the adjusting of manholes and utility boxes frames and covers to final grade, miscellaneous repairs such as replacing portions of concrete or brick, removing debris, minor grade adjustments, and other repairs as directed by the Engineer. This item covers all structures located behind the curb outside of roadway pavements. Structures located within the proposed roadway pavement shall be adjusted in accordance with other pertinent pay items.

MATERIALS.

- A. **Brick Pavers.** All brick pavers shall conform to ASTM C 902 Specification for Pedestrian and Light Traffic Paving Brick, Grade SW, Type 1, wire cut paving brick. Paving bricks shall be solid, uncored and unfrogged. Brick color shall be of a uniform shade range, and shall match existing bricks found at the site. Paver size shall match existing bricks found at the site. Contractor shall submit four samples of individual bricks showing the full extent of color range for approval.
- B. **Precast Concrete Pavers.** All precast concrete pavers shall match the shape, size and finish of the existing precast concrete pavers. Contractor shall submit two samples of individual precast concrete pavers showing the full extent of color and finish range for approval.
- C. **Bituminous Setting Bed.** Asphalt cement concrete to be used shall conform to Section 904.04 Hot Mix Asphalt (HMA). The fine aggregate to be used shall conform Section 901.01 Aggregates. The dried fine aggregate shall be combined with hot asphalt cement and the mix shall be heated to approximately 300-degrees Fahrenheit at an asphalt plant. The approximate proportion of materials shall be 7-percent cement asphalt and 93-percent fine aggregate. The Contractor shall determine the exact proportions of materials to produce the best possible mixture for construction of the bituminous setting bed to meet construction requirements.
- D. **Neoprene Modified Asphalt Adhesive.** Adhesive shall consist of 2-percent neoprene (Grade WM1) oxidized asphalt with a 155-degree F softening point (80-percent penetration) and 10-percent asbestos free fibers.
- E. **Joint Filler for Material Pavers.** The sand shall conform Section 901.01 with not more than 5-percent passing the No. 100 sieve; 100-percent may pass the No. 30 sieve, but if the work requires coarser sand, the coarse sieve size limit may be increased to No. 16.
- F. **Tack Coat.** Tack coat shall conform to Section 904.03 Emulsified Asphalt.

- G. **Paver Edge Restraint.** Paver edge restraint for hand tight brick paving shall be 4-inch x 3/16-inch steel, with 18-inch long anchor stakes. Finish shall be black.
- H. **Concrete Slab.** Concrete slab shall be MDSHA Concrete-Mix No. 2 (3,000-pound per square inch at 28-days.) in accordance Section 902.10 Portland Cement Concrete.

I. Expansion Joint Material and Sealant:

- Preformed Expansion Joint Material Use the bituminous type which meets the
 requirements of AASHTO Designation M 213 Preformed Expansion Joint Fillers
 for Concrete Paving and Structural Construction with the exception of the weathering
 test. All the joint material shall be 1/4-inch thick except at walls and other adjacent
 surfaces, where joints shall be 1/2-inch thick.
- 2. Sealant Sealant shall be a two component polyurethane caulk. Sealant color to match adjacent pavers.
 - a. Install preformed joint filler at locations shown. Extend filler from the bottom of concrete to below the finished surface as detailed.
 - b. Make splices in the filler in a manner to prevent penetration of concrete between joint faces.
 - c. Install in the form a water-soaked wood strip of the required dimensions for, after removal, a proper size slot to receive the sealant compound.

Expansion Joint Material will not be measured for payment but will be incidental to other pertinent items specified in the Contract Documents.

3. Weed barrier shall meet the following:

Property	Typical Value	Test Method
Unit Weight (oz/yd²)	4.0	ASTM D 3776
Tensile Strength (lbs)	145	ASTM D 4632
Elongation at Break (%)	70 min	ASTM D 4632
Mullen Burst Strength (psi)	175	ASTM D 3786
Puncture Strength (lbs)	50	ASTM D 751 Mod.
Coefficient of Permeability	3x10G ²	ASTM D 4491
(cm/sec.)		

CONSTRUCTION.

- A. **Submittals.** The Contractor shall supply the following submittals for approval by the Engineer:
 - 1. Samples. Submit samples of type and finish color of the Brick and Precast Concrete Pavers specified.

B. Delivery, Storage, and Handling.

- 1. Deliver, store, handle and protect products in accordance with manufacturer's instruction. Store in protected and dry area in manufacturer's protective shipping crates or packaging.
- 2. Contents of all packages delivered to the site shall be examined immediately upon delivery and any brick and precast concrete paver units damaged during shipping will be subject to rejection. Contractor shall inspect the shipment to assure that all items are complete.

- 3. Do not use brick and precast concrete pavers with chips, cracks, voids, discolorations, and other defects, which might be visible or cause staining in the finished work.
- 4. Use full brick and precast concrete paver units without cutting wherever possible, where necessary, Contractor shall cut brick and precast concrete pavers with motor driven saw equipment designed to cut masonry with clean, sharp, unchipped edges. Cut brick and precast concrete paver units as required to provide the pattern shown and to fit adjoining work neatly.
- 5. Set brick and precast concrete paver in the patterns to match existing brick and precast concrete pavers sidewalk, and with uniform hand tight joints.
- 6. Maintain surfaces plane for finished paver floors not exceeding a tolerance of 1/8-inch in 10-feet when tested in a 10-foot straightedge.
- 7. Use the brick and precast concrete pavers pace which matches the color of adjacent pavers to yield the tightest color range possible.

C. Setting brick and precast concrete pavers.

- 1. Construct concrete foundation pavement on existing walk sub-base or Graded Aggregate Sub-Base Material providing expansion joints in the concrete foundation pavement.
- 2. Examine surfaces to receive paving, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of brick and precast concrete pavers. Do not proceed with installation until any unsatisfactory conditions have been corrected.
- 3. Vacuum clean concrete substrates to remove dirt, dust, debris, and loose particles.
- Bituminous material for tack coat shall be provided between the concrete foundation slab and the bituminous setting bed. The tack coat shall completely cover the concrete foundation slab.
- 5. The setting bed shall be rolled while hot with a power roller to a nominal depth of 1/2-inches.
- 6. The elevation shall be adjusted so that when the pavers are placed, the top surface of the brick and precast concrete pavers will be at the required finished grade.
- 7. A coating of 2-percent neoprene modified asphalt adhesive shall be applied by mopping or squeegeeing or troweling over the top surface of the bituminous setting bed so as to provide a bond under the pavers. If it is troweled, the trowel shall be serrated with serrations not to exceed 1/16-inch. When the modified asphalt adhesive is dry to the touch, carefully place the brick and precast concrete pavers by hand in straight courses with hand tight joints and uniform top surfaces. Good alignment must be kept, and the pattern shall match the existing pattern found at the site of sidewalk replacement. Use string lines as necessary to keep pattern straight and true to the existing brick and precast concrete pavers.
- 8. Newly laid brick and precast concrete pavers must be protected at all times by panels of plywood on which the installer stands. These panels can be advanced as work progresses. However, the plywood protection must be kept in areas which will be subjected to continued movement of materials and equipment. These precautions must be taken in order to avoid depression and protect brick and precast concrete pavers alignment. If additional leveling of the brick and precast concrete pavers is required, and before seeping in joint filler, roll with a power roller after sufficient heat has built up in the surface from several days of hot weather.

- 9. Provide hand tight joints (1/16-inch to a maximum 3/16-inch). Sweep a dry mixture of one (1) part colored Portland cement to match the color of the pavers and three (3) parts sand until joints are completely filled. Fog lightly with water. Repeat this process until all joints are filled. Cement stains that remain shall be cleaned with a 10-percent solution of muriatic acid or mortar cleaner.
- 10. Place brick and precast concrete pavers edge restraint at the limits of the hand tight brick and precast concrete pavers at each tree pit or as directed by the Engineer.
- 11. Control and expansion joints shall be installed where brick and precast concrete pavers abut restraining surfaces such as walls, curbs, etc.

MEASUREMENT AND PAYMENT.

Reset Brick Pavers shall be measured and paid for and the contract unit price per square foot. This shall include the removal, salvage and reuse of exiting pavers, and new brick pavers, bituminous setting bed, tack coat, neoprene adhesive, expansion joints, sand swept joints, concrete slab, and graded aggregate sub-base, paver edge restraints, saw cutting, demolition and proper disposal of all materials not reused in the work.

CATEGORY 600 SHOULDERS

SECTION 603 — SIDEWALKS

603.02 MATERIALS

INSERT: The following.

Topsoil Section 705.02 Turfgrass Sod Section 708.02

206.02 CONSTRUCTION.

INSERT: The following.

Topsoil Section 705.03 Turfgrass Sod Section 708.03

206.04 MEASUREMENT AND PAYMENT.

<u>DELETE</u>: The first paragraph in its entirety.

INSERT: The following.

The payment will be full compensation for all excavation, backfill, 4" topsoil, turfgrass sod disposal of excess or unsuitable material, forms, reinforcement when specified, joints, sealer, compaction, curing, finishing, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

CATEGORY 800 TRAFFIC

AUDIBLE PEDESTRIAN PUSHBUTTON STATION AND SIGNS

DESCRIPTION. Furnish and install self-contained Audible/Tactile Pedestrian Pushbutton Station and Signs, as specified in the Contract Documents or as directed by the Engineer.

MATERIALS. Audible/Tactile Pedestrian Pushbutton Station and Signs and all component parts must meet the latest edition of the National Electrical Manufacturers Association (NEMA) Standards and Underwriters Laboratory (UL), as applicable

Serial numbers and model numbers, if available, shall be permanently engraved on all removable components and hardware. The serial number and model number shall be etched, stamped, molded, or attached using metallic self-adhesive labels. The use of adhesive backed paper labels is not acceptable.

CONSTRUCTION. Audible/Tactile Pedestrian Pushbutton Station and Signs will be designed to mount near or at the bottom of the pedestrian display mounting post. The pushbutton assembly for the audible signal may replace or supplement an existing pedestrian signal pushbutton.

Audible/Tactile Pedestrian Pushbutton Station and Signs shall be designed as follow:

- (1) A single base unit at the traffic control cabinet must be able to control 2 to 12 (maximum of 3 per phase) push button stations.
- (2) Only a single 2 conductor cable will be required from traffic controller cabinet per each pushbutton to operate all pushbutton features.
- (3) Each station will have a 2-in. button with a tactile raised directional arrow on the button.
 - (a) It shall be possible to change the arrow direction to one of four directions.
 - (b) Arrow/button shall vibrate during the walk period following a push of the button.
- (4) The push button station frame shall be cast aluminum with mounting holes for a 5 in. by 7.75 in. or larger pedestrian sign.

Audible/Tactile Pedestrian Pushbutton Station and Signs will have the following features.

- (1) Locating tone
- (2) 5 walk sound choices that shall be field selectable.
- (3) 3 pedestrian clearance sound choices that shall be field selectable.

- (4) A Direction of Travel message shall be standard with extended push.
- (5) An Information message shall be optional with extended push.

The audible sounds emitted by the Audible/Tactile Pedestrian Pushbutton Station and Signs shall have the following properties

- (1) All audible sounds shall emanate from the push button station.
- (2) All audible sounds for all push button stations shall be synchronized.
- (3) Each audible feature shall have independently-adjustable minimum and maximum volume limits.
- (4) All sounds shall automatically adjust over a 60 dB range to compensate for ambient noise levels.
- (5) All volumes and optional features shall be settable using a handheld infrared device with password security. The infrared device shall be capable of updating/setting all push button stations, or the intersection from a single pushbutton station (Global updating).
- (6) The ability to mute sounds at all crosswalks except activated crosswalks.

The system shall have user-selectable multiple language capability.

The system shall be able to play an emergency preemption message.

The system shall be able to self-test its buttons and to report any faults to the traffic controller.

Warranty. Audible/Tactile Pushbutton Station and Signs shall be warranted by the Manufacturer for a period of 24 months from the date of delivery.

Compatibility Testing: Audible/Tactile Pushbutton Station and Signs manufacturers shall certify that their modules meet the Load Switch and Signal Conflict Monitor Compatibility testing requirements found in the most recent, formally-adopted version of the specification titled "Pedestrian Traffic Control Signal Indications - Part 2: Light Emitting Diode (LED) Pedestrian Traffic Signal Modules," published by the Institute for Transportation Engineers (ITE).

MEASUREMENT AND PAYMENT. Audible/Tactile Pedestrian Pushbutton Station and Signs will be measured and paid for at the contract unit price each. The payment will be full compensation for furnishing, programming, delivery to the specified signal shop for testing, pick up, and installing the push button stations, signs, all cables, labor, equipment, tools, and incidentals necessary to complete this work. Audible/Tactile Pedestrian 2-wire Central Control Unit will be measured and paid for at the contract unit price per each. The payment will be full compensation for furnishing, programming delivery to the specified signal shop for testing, pick up, and installing the Audible/Tactile Pedestrian Base unit and all cables, labor, equipment, tools, and incidentals necessary to complete this work.

CATEGORY 800

TRAFFIC

CATALOG CUTS AND WORKING DRAWINGS

DESCRIPTION. Prepare and transmit submittals to demonstrate the performance of the work in accordance with the Contract Documents. Submittal schedules, catalog cuts, shop drawings, installation methods, manufacturer's certifications, photometric data and working drawings shall be furnished on all Contractor furnished items for highway signing, sign lighting, highway lighting and traffic signals. Stakeouts of the sign locations shall be submitted for all sign structure locations as specified in the Contract Documents **MATERIALS.** Not Applicable.

CONSTRUCTION.

Submittal Requirements. Submittals shall be scheduled and coordinated with the Contractor's construction schedule. A complete submittal schedule and list of required submittals shall be submitted with the first submittal, but no later than three days after the pre-construction conference. The schedule for submission of submittals shall be arranged so that related equipment items are submitted concurrently. The Engineer may require changes to the submittal schedule to permit concurrent review of related equipment. Shop drawings for closely related items such as a sign and ITS support structures shall be submitted together.

Submittal Documents. Drawings shall be neat in appearance, legible and explicit to enable proper review. D size plans shall still be legible when reduced to one half size. They shall be complete and detailed to show fabrication, assembly and installation details, wiring and control diagrams, catalog data, pamphlets, descriptive literature, and performance and test data. They shall be accompanied by calculations or other sufficient information to provide a comprehensive description of the structure, machine or system provided and its intended manner of use. If drawings deviate from the Contract Documents, advise the Engineer in writing with the submittal and state the reason for the deviation. No portion of the work requiring a Contractor's drawing shall be started nor shall any materials be fabricated, delivered to the site, or installed prior to the approval or qualified approval of the drawings. Fabrication performed, materials purchased or on-site construction accomplished which does not conform to approved Contractor's drawings shall be at the Contractor's risk. The Administration will not be liable for any expense or delay due to corrections or remedies required to accomplish conformity. Shop drawings shall show types, sizes, accessories, layouts including plans, elevations and sectional views, component, assembly and installation details, and all other information required to illustrate how applicable portions of the Contract requirements will be fabricated and installed. In case of fixed mechanical and electrical equipment, layout drawings drawn to scale, shall be

submitted to show required clearances for operation, maintenance and replacement of parts.

Manufacturer's certified performance curves, catalog cuts, pamphlets, descriptive literature, installation and application recommendations, shall be provided and indicate conformance to the Contract Documents. Certifications shall be originals. Certification shall also be sent to the Office of Materials and Technology (OMT) as required in the Contract Documents.

Manufacturer's catalog, product and equipment data shall include materials type, performance characteristics, voltage, phase, capacity, and similar data along with wiring diagrams when applicable. Indicate catalog, model and serial numbers representing specified equipment. Provide complete component information to verify all specified required items. Installation recommendations and instructions shall provide written Manufacturer's detail step by step preparation and installation of the materials, and products including recommended tolerances and space for maintenance and operation. Catalog cuts for sign luminaires shall have photometric data attached for each sign to be illuminated. Photometric printouts shall include the sign number, the illumination on a one foot square grid covering the entire sign face, the average illumination, the maximum to minimum uniformity ratio, and a working drawing for the sign face attached.

Catalog cuts for roadway luminaires shall have photometric data attached as specified in the Contract Documents.

Submit working drawings as required for changes, substitutions, contractor design items, and Contractor designed methods of construction. Requirements for working drawings will be listed in appropriate Specification Sections and in Special Provisions. Drawings shall be accompanied by calculations or other information to completely explain the structure, machine or system described and its intended use. Review and approval of such drawings by the Engineer shall not relieve the Contractor from its responsibility with regard to the fulfillment of the terms of the Contract.

Working drawings and calculations as submitted shall be sealed, dated and signed by a Professional Engineer registered in the State of Maryland.

The review and approval of Contractor's drawings by the Administration shall not relieve the Contractor from its responsibility with regard to the fulfillment of the terms of the Contract. The Contractor shall be responsible for the verification and accuracy of all dimensions and insuring that all Contractor furnished items are compatible, and conform to all design and performance criteria.

All risks of error and omission are assumed by the Contractor and the Engineer will have no responsibility therefor.

Submittal Process. Each drawing submitted shall have affixed to it the following Certification Statement, signed by the Contractor:

"By this submittal, I hereby represent that I have determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers and pertinent data and I have checked and coordinated each item with other applicable approved drawings and Contract requirements."

With the first submittal, include a submittal schedule, listing by Specification Section number, all submittals required and approximate date submittal will be forwarded.

Each submittal having catalog descriptions, shop drawings, working drawings, photometric data, manufacturer's certifications, method of construction and manufacturer's installation recommendations shall be submitted to the City of Rockville.

Each submittal shall have a transmittal page that indicates the Contractor's and Subcontractor's address and phone numbers. Submittals containing multiple items need the transmittal only on the exterior of each

package. Electronic (*.pdf format) and original submittals, shall be required. A separate copy shall be forwarded to the Engineer.

All submittals for approval shall have the following identification data, as applicable, contained thereon or permanently adhered thereto.

- (a) Drawing title, drawing number
- (b) Applicable Contract Drawing Numbers and Specification Section and Paragraph Numbers.

The first page of every catalog description, working drawing and material certification shall be stamped in red with the following. All pertinent Contract Document information shall be filled in the spaces provided.

CITY OF ROCKVILLE				
SUBMITTAL PACKAGE CONTRACT # PROJECT DESC.				
ITEM #ITEM DESCRIPTION	THIS ITEM CONTAINSPAGES			
☐ ACCEPTED ☐ ACCEPTED AS NOTEI ☐ REJECTED - REVISE &				
REVIEWERS NAME	DATE			

Indicate the submittal package by sequential numbering and date of submittal. Catalog, product data or brochure submittals containing various products, sizes and materials shall be underscored or highlighted to indicate the salient features required to meet the specifications. Likewise, items not applicable to the Contract shall be marked "not applicable" or crossed out.

If one or more of the items in a submittal are not approved, resubmittal of only the unapproved items is required, highlighted to show the particular item being resubmitted. Resubmittals shall bear original submittal number and be lettered sequentially.

Three copies of all Contractor's drawings will be returned to the Contractor.

Each submittal shall be in accordance with the submission schedule. Allow thirty days for checking and appropriate action by the Engineer.

Contractor's submittals will be returned, marked with one of the following classifications:

ACCEPTED: no corrections, no marks

ACCEPTED AS NOTED: a few minor corrections. Item shall be installed in accordance with the corrected drawings.

REJECTED - REVISE & RESUBMIT: requires corrections or is otherwise not in accordance with the Contract Documents. No items shall be fabricated. Correct and resubmit drawings as per original submission. Allow thirty days for checking and appropriate action by the Engineer.

MEASUREMENT AND PAYMENT. Catalog cuts, manufacturer's certifications, photometric data and working drawings will not be measured but the cost will be incidental to the pertinent items specified in the Contract Documents.

CATEGORY 800

TRAFFIC

GALVANIZED TRAFFIC SIGNAL PEDESTAL POLES AND TRANSFORMER BASES

DESCRIPTION. Furnish and install galvanized traffic signal pedestal poles and transformer bases at locations specified in the Contract Document or as directed by the Engineer.

MATERIALS. Design shall meet 2001 edition of AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals except as noted. All welding shall conform to American Welding Society (AWS) Structural Welding Code D1.1 - Steel, Tubular Structures.

Determine each pedestal pole's height by the total height of the pedestal pole including the transformer base.

- (a) 10 ft pole height consists of a 103 in. steel shaft with a steel base plate plus a 17 in. transformer base.
- (b) 5 ft pole height consists of a 43 in. steel shaft with a steel base plate plus a 17 in. transformer base.

Each pedestal pole furnished shall consist of a design from a steel shaft with a steel base plate, transformer base and all miscellaneous hardware.

- (a) The pedestal pole shaft shall be fabricated of one length and shall have one longitudinal weld, parallel to the long axis of the pedestal pole shaft, with no transverse welds. The longitudinal weld shall be finished to form a smooth outside surface and the wall of the pedestal pole shaft shall be uniform in thickness including the welded area. The pedestal pole shaft shall be round or multisided (less than eight sides not acceptable) in cross section. 14 ft units shall be uniformly tapered from butt to tip with a 1 in. reduction in diameter for each 7 ft in length (0.14 in./ ft). 10 ft and 5 ft unit shall not be tapered.
 - (1) 10 ft and 5 ft pedestal pole shafts shall be 4-1/2 in. outside diameter, Schedule 40 pipe, and conform to A 501.
 - (2) All 14 ft pedestal poles shall be 7-1/2 in. outside diameter at the base and shall be made of 11 gauge (0.119 in.) thickness steel conforming to A 595, Grade A or equivalent.
 - (3) All 20 ft pedestal poles shall be 7-1/2 in. outside diameter at the base and shall be made of 3 gauge (0.25 in.) thickness steel conforming to A 595, Grade A or equivalent
- (b) The base plate material shall meet the requirements of A 709, Grade 36. The base plate shall be secured to the lower end of the pedestal pole shaft by two continuous electric arc welds. The base plate shall telescope the pedestal pole shaft with one weld on the inside of the base plate at the end of the pedestal pole shaft. The remaining weld shall be located on the outside of the base plate at the top of the pedestal pole shaft. The weld connection shall develop the full strength of the adjacent pedestal pole shaft to resist bending action. All bases plate shall be fabricated with the holes for anchor bolts to the size and location dimensions as shown in MD-818.16 and 818.17.
- (c) 14 ft pedestal poles shall be furnished with entrance ways for cable as noted in the contract documents. These holes must be factory drilled and a straight tapped coupling, conforming to Underwriters Laboratory's UL-6 Specification, for 2 in. rigid conduits, must be installed for each hole. A nipple with a unitized hexagonal fitting and integral inside radius on one end must then be

- installed and fully seated on the interior side of the coupling. Location and installation of the coupling shall be as shown in MD-818.17.
- (d) All pedestal poles and hardware, except materials manufactured from stainless steel or cast aluminum, shall be hot dipped galvanized. The galvanized coating shall conform to the thickness, adherence and quality requirements of A 123 and A 153 for hardware. Threaded components shall be chased and cleaned after galvanizing. All internally threaded components shall be tapped oversize the minimum amount required to permit assembly on the coated externally threaded fastener. Internally threaded components shall be provided with a lubricant which shall be clean and dry to the touch.
- (e) Each pedestal pole shall be furnished with a removable domed cap, fabricated from cast aluminum, circumferentially attached to the side of the pole with three hex head type 304 stainless steel bolts (1/4 in. 20 UNC).
- (f) Each pedestal pole shall have an identification plate mechanically attached 6 in. above the pedestal pole base plate and oriented so that the identification plate may be read from a ground observation position.
- (g) Recessed hub type, galvanized malleable iron plugs shall be inserted flush into all couplings.

Transformer Bases

- (a) All transformer bases shall be approved by FHWA as meeting breakaway under NCHRP 350.
 - (c) Each transformer base must be furnished with four hex head bolts, four hex head nuts and all associated hardware as shown on the appropriate detail for fastening the pedestal pole base plate to the top of the transformer base. All bolts shall conform to A 325 specifications and must be galvanized.

(d)

Anchor Bolts

- (a) Each pedestal pole anchor bolt shall be made of steel conforming to M 314, Grade 55 S1
- (b) Anchor bolt threads shall be of cut thread design with a minimum 6 in. of threads at the top.
- (c) The template and anchor plates shall be as shown on MD801.01.
- (d) The diameter of the anchor bolt shall be stamped into the top of the threaded end of each anchor bolt.
- (e) Each anchor bolt shall be provided with two attached heavy hex nuts and two attached flat washers.
 - (1) Anchor bolt nuts shall conform to A 194, grade 2 or 2H, or A 563, D or DH.
 - (2) All nuts shall be tapped oversize the minimum amount required to permit assembly on the coated externally threaded fastener.
 - (3) Washers shall conform to F 436.
- (f) All nuts, washers, and the top 12 in. of all anchor bolts shall be hot dipped or mechanically galvanized. The galvanized coating shall conform to the thickness, adherence and quality requirements of A 123 or A 153 for hardware.
 - All high strength bolts (of a given length), nuts (of a given size) and washers (of a given diameter) shall be from the same manufacturing lot per each requisition of materials. The use of foreign made fasteners is prohibited.

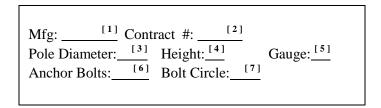
CONSTRUCTION.

Refer to 818.03

MEASUREMENT AND PAYMENT.

Pedestal poles will be measured and paid for at the Contract unit price per each type of pole furnished and installed. The payment will be full compensation for furnishing and installing pedestal poles, breakaway base and all materials, labor, equipment, tools and incidentals necessary to complete work. Anchor bolts will be measured and paid for as specified in Section 801.

Tag Detail



Tag Reference

- [1] Name of the manufacturer of the pedestal pole.
- [2] Administration Contract Number of the pedestal pole.
- [3] Pole outside diameter at the base: 4-½ in. O.D. or 7-½ in. O.D.
- [4] Pole height¹: 10ft', 14ft, 20 ft
- [5] Pole gauge: Schedule 40 or 11 GA
- [6] Anchor bolt size: 1 in. Dia. x 40 in. Length
- [7] Bolt circle diameter: 11 in. Dia.

¹Pole height includes the height of the pedestal pole and transformer base. Typically, the transformer base is

17 in. in height which corresponds to 10 ft pole having a height of 103 in.; and a 14 ft having a height of 151 in

CATEGORY 800 TRAFFIC

LED COUNTDOWN PEDESTRIAN SIGNALS

DESCRIPTION. Furnish and install self-contained LED Pedestrian Countdown Signals, as specified in the Contract Documents or as directed by the Engineer.

MATERIALS. LED Pedestrian Signals and all component parts must meet the latest edition of the National Electrical Manufacturers Association (NEMA) Standards and Underwriters Laboratory (UL), as applicable. In addition, LED Pedestrian Countdown signals must meet the requirements set forth in the most recent, formally-adopted version of the specification titled "Pedestrian Traffic Control Signal Indications (PTCSI) - Part 2: Light Emitting Diode (LED) Pedestrian Traffic Signal Modules," published by the Institute for Transportation Engineers (ITE). All LED Pedestrian Countdown Signals must be certified by the manufacturer to meet or exceed all requirements of that specification over their entire 5-year warranty period. Serial numbers and model numbers, if available, must be permanently engraved on all removable components and hardware. The serial number and model number must be etched, stamped, molded, or attached using metallic self-adhesive labels. The use of adhesive backed paper labels is not acceptable.

CONSTRUCTION.

LED Countdown Signal Modules.

- (a) LED countdown modules must fit into existing 16-inch traffic signal housings built to PTCSI standards without modification to the housing.
- **(b)** The LED countdown module must be a single, self-contained device, not requiring on-site assembly for installation into existing traffic signal housing.
- (c) The assembly of the LED countdown module must be designed to assure all internal components are adequately supported to withstand mechanical shock and vibration from high winds and other sources.
- (d) The signal module must be protected by a ¼ inch thick non-glare UV treated polycarbonate face lens.
 - (e) The signal must have 2 individual sets of wires for electrical connections. One set for the hand/man section and another for the countdown section. Each set must be made of three secured, color coded (blue, red, white), 36 inches long, 600V, 16 AWG jacketed wires, rated for service at +105°C.

Environmental

- (a) The LED countdown module must be rated for use in the ambient operating temperature range of -40°C (-40°F) to $+74^{\circ}\text{C}$ ($+165^{\circ}\text{F}$).
- (b) Completely seal the LED countdown module against dust and moisture intrusion per the requirements of NEMA Standard 250 1991 sections 4.7.2.1 and 4.7.3.2 for type 4 enclosures to protect all internal components.

Chromaticity

- (a) The measured chromaticity coordinates for the white walking Person and the Portland Orange Hand and Digits must conform to the chromaticity requirements of section 8.04 and figure 1 of the PTCSI standard.
- (b) The chromaticity measurements must remain unchanged over the input line voltage range of 80 VAC to 135 VAC.

Display

- (a) The LED countdown signal module must consist of a double overlay message combining the symbols of a Hand and walking Person and two "7 segment" digits forming the time display.
 - **(b)** Arrange the Pedestrian icon LEDs to form solid icon symbols. The shape of the symbols must conform to the standard symbols for pedestrian signals.
- (c) Distribute the LED's evenly in each Pedestrian icon. The distance between each LED shall be evenly spaced.
- (d) The Hand/Person symbols must be at least 10" high and 6.5" wide and must incorporate sufficient LED's to assure adequate luminous intensity.
 - (e) The countdown digits must be at least 9" high and must be made of 2 rows of at least 144 LED's.
- (f) The Portland Orange LED's must be of the latest Alln GaP technology and the white LED's of the latest In GaN technology.
- (g) Interconnect the individual LED light sources so that a catastrophic failure of a single LED will result in a total loss of not more than 3 LED's or 5% of the signal light output.

Drive circuitry

- (a) The LED drive current shall be regulated to compensate for line voltage fluctuations over the range of 80VAC to 135 VAC. The luminous output shall not vary more than 1% over the voltage range and shall not be perceptible to the human eye.
- (b) The drive circuitry must include voltage surge protection to withstand high-repetition noise transients and low-repetition high-energy transients as stated in section 2.1.6, NEMA Standard TS-2, 1992.
- (c) The on-board circuitry must meet FCC title 47, Sub-Part B, Section 15 regulations concerning the emission of electronic noise.
- (d) The circuitry shall ensure compatibility and proper triggering and operation of load switches and conflict monitors in signal controllers currently in use by the procuring traffic authority.
 - (e) The countdown signal shall not be activated by input signals under 80 VAC.
- (f) The "countdown" portion of the signal must have a high "off state" input impedance to ensure it does not prevent the conflict monitor from detecting an open load failure on the pedestrian signals. The input impedance of the countdown signal shall be such as to produce a load switch leakage voltage above 25 VAC to the conflict monitor for up to 4 units per channel.
- (g) The countdown signal drive circuitry must not suffer any damage when subjected to defective load switches providing a half wave signal output.
- (h) Typical power consumption of the countdown display must not exceed 5 watts with a power factor greater than 90%.

Countdown Function

(a) The countdown module must be compatible with all types of traffic controllers.

- **(b)** The countdown timer module must have a micro-processor capable of recording it's own time when connected to a traffic controller.
- (c) When connected, the module must blank out the display during the initial cycle while it records the countdown time using the Walk & D/Walk signal indications.
- (d) The display of the number of remaining seconds shall begin only at the beginning of the pedestrian change interval.
 - (1) After the countdown displays "zero," the display must remain dark until the beginning of the next countdown.
 - (2) The countdown pedestrian signal must display the number of seconds remaining until the termination of the pedestrian change interval.
 - (3) Countdown displays shall not be used during the walk interval, nor during the yellow change interval of a concurrent vehicular phase.
- (d) The countdown timer module shall continuously monitor the traffic controller for any changes to the pedestrian phase time and re-program itself automatically if needed.
- (e) The countdown module shall register the time for the walk and clearance intervals individually and shall begin counting down from the start of the clearance time or the sum of both interval times if selected.
 - (f) If the walk interval is pre-empted (emergency vehicle), the countdown module shall skip the remaining walk time and begin the clearance interval countdown to reach 0 at the same time as the flashing hand becomes solid.
- (g) If the clearance interval is pre-empted (train), the countdown module shall skip the remaining clearance time and reach 0 at the same time as the flashing hand becomes solid.
- (h) In the cycle following a pre-emption call, the signal shall display the correct time and not be affected by the reduced previous cycle. The countdown must always reach 0 at the same time as the flashing hand becomes solid.
 - (i) When the flashing hand becomes solid, the module will display "0" for one second and then blank-out.
 - (j) The countdown timer must be capable of timing 2 consecutive complete pedestrian cycles outputted by the traffic controller (no steady hand signal between cycles).
- (k) The countdown module must have an internal conflict monitor preventing any possible conflicts between the Hand/Person signal indications and the time display. It shall be impossible for the countdown to display any time during a solid hand indication.
- (l) The countdown module shall have accessible dip-switches for the following user selectable options:
 - (1) Display 0 during stand-by.
 - (2) Turn on all LEDs for testing
 - (3) "Coordinated" mode, (displays clearance time only)
 - (4) Disable countdown display.
- (m) The LED module shall have a removable plug on the rear of the unit to allow for easy access to dip switches.
- (n) If the pedestrian change interval is interrupted or shortened as a part of a transition into a preemption sequence, the countdown pedestrian signal display must be discontinued and go dark immediately upon activation of the preemption transition.

Housing

Countdown Pedestrian Signals must be have a single piece cast aluminum case housing, a lens, and a single piece cast aluminum swing down door frame.

- (a) The maximum overall dimension of the signal shall be 18.5" W x 18.75" H x 9" D. (470 x 476 x 229 mm), including the visor and hinges. The distance between the mounting surfaces of the upper and the lower openings shall be 15.75" (400 mm).
- **(b)** The case shall be one piece corrosion resistant aluminum alloy die casting, complete with integrally cast top, bottom, sides and back.
 - (1) Four integrally cast hinge lug pairs, two at the top and two at the bottom of each case, shall be provided for operation of the swing down door.
 - (2) When properly mated to other pedestrian signal components and mounting hardware, the case shall provide a dustproof and weatherproof enclosure and shall provide for easy access to and replacement of all components.
 - (3) The case shall be mounted via upper and lower openings, suitable for either post top or bracket mounting. The openings must accommodate standard 1.5" (39 mm) pipe brackets. The bottom opening of the case must have a shurlock boss integrally molded into the case. The dimension of the shurlock boss shall be:
 - (a) Outside diameter 2.625" (667 mm)
 - **(b)** Inside diameter 1.969" (50 mm)
 - (c) Number of teeth 72
 - (d) Angle of teeth 90°
 - (e) Depth of teeth 5/64" (2 mm) inch.

A shurlock boss of the same dimensions shall be an option for the top opening of the case. The radial angular grooves of the shurlock boss, when used with the shurlock fittings, shall provide positive positioning of the entire signal to eliminate rotation or misalignment of the signal.

- (c) The door frame shall be a one piece corrosion resistant aluminum alloy die casting, complete with two hinge lugs cast at the bottom and two latch slots cast at the top of each door.
 - (1) The door must be attached to the case by means of two Type 304 stainless steel spring pins.
 - (2) Two stainless steel hinged bolts with captive stainless steel wingnuts and washers must be attached to the case with the use of stainless steel spring pins.
 - (3) Latching or unlatching of the door must require no tools.

Warranty

Manufacturers shall provide a written warranty with the following minimum provisions:

(a) LED countdown signal modules shall be replaced, repaired or purchase value refunded if the module fails to function as intended due to workmanship or material defects within the first 60 months from the date of delivery.

(b) LED countdown signal modules which exhibit luminous intensities less than the minimum specified values within the first 60 months of the date of delivery shall be replaced, repaired or purchase value refunded.

Compatibility Testing

The LED Pedestrian Countdown Signal manufacturer shall certify that their equipment meets the Load Switch and Signal Conflict Monitor Compatibility testing requirements found in the most recent, formally-adopted version of the specification titled "Pedestrian Traffic Control Signal Indications - Part 2: Light Emitting Diode (LED) Pedestrian Traffic Signal Modules," published by the Institute for Transportation Engineers (ITE).

MEASUREMENT AND PAYMENT. LED Pedestrian Countdown Pedestrian Signals will be measured and paid for at the contract unit price each. The payment will be full compensation for furnishing and installing the signals, LED modules, equipment specified, all mounting hardware, labor, and incidentals necessary to complete this work.

CATEGORY 800

TRAFFIC UTILITY STAKEOUT

DESCRIPTION. This work shall consist of utility connections, and utility stakeout, as specified in the Contract Documents or as directed by the Engineer.

CONSTRUCTION. Arrange a meeting with the utility company representatives, the City, and the Engineer as specified in the Contract Documents to establish a schedule for utility connections before any equipment or material is installed.

Do not disconnect, de-energize, reconnect, tamper with, or otherwise handle any of a utility company's facilities. The Contractor shall be responsible for the utility service connections to the utility company's supplied point of service.

Make the necessary arrangements with the utility companies to insure having needed utilities available at the time of turn on. Any utility energization, connection or disconnection delays will not be considered a valid reason for any work time extension claim. Difficulties in securing utility company services shall be reported to the Engineer at the earliest possible time.

Utility Stakeout. Notify the appropriate agencies listed in the Contract Documents prior to the Contractor's anticipated beginning of any underground work.

Plan the work to minimize interference with any existing traffic control devices.

Existing equipment shall remain in it's original condition until the new equipment has been completed, satisfactorily tested and its operation accepted by the Engineer.

MEASUREMENT AND PAYMENT. Utility Stakeout will not be measured but the cost will be incidental to other pertinent items specified in the Contract Documents.

CATEGORY 800

TRAFFIC

EQUIPMENT TURN ON, REMOVAL AND MAINTENANCE

DESCRIPTION. The work consists of removal of existing equipment, and maintaining existing equipment as specified in the Contract Documents or as directed by the Engineer.

MATERIALS. Not applicable

CONSTRUCTION.

Equipment Turn On. Notify the Engineer five working days prior to the completion of the project to schedule a final inspection and turn-on.

Stakeout, with the Engineer present, the proposed construction as indicated on the plan.

Removal and Disposal of Existing Material and Equipment.

Contractor shall remove and dispose of existing equipment as shown on the plans and/or as directed by the engineer. All existing removed equipment shall become the property of the Contractor upon completion of the project, unless otherwise directed be the City.

Remove concrete foundations specified in 207.03.01. All holes caused by this removal shall be backfilled, compacted and restored to surrounding conditions.

Remove all existing hard rubber detectors and handholes not shown on the Plans. The holes shall be backfilled, compacted and restored to surrounding conditions. The sidewalk where handholes are removed shall be reconstructed to the nearest tooled joint or expansion joint. The roadway where hard rubber detectors are removed shall be reconstructed in conformance with Administration utility patch repair standards.

Disconnect existing inductive loop detectors and magnetic detectors not shown on the plans.

Disposal of all material not salvaged. Non-galvanized green painted structures may contain lead and the contractor will be responsible for proper disposal of such material.

Storage of Materials. Materials shall be bundled, stored, and protected in conformance with the manufacturer's recommendations or as approved by the Engineer.

Maintenance of Materials and Equipment. The maintaining agency will continue maintenance of any existing signals until the Contractor places new equipment into operation.

When the work requires adjustments to the traffic control devices to maintain the minimum City standards, the adjustments to the traffic control devices shall be made within 4 hours of verbal notification by the Engineer. Failure to comply with this time period will result in the Administration performing adjustment and deducting the cost of the adjustment from the Contractor's payment.

Existing signals shall remain in their original condition until the new signals have been completed, satisfactorily tested and its operation accepted by the Engineer.

Maintain the continuous operation of all vehicular and pedestrian detectors. If any detector is damaged by the Contractor, it shall be repaired within 72 hours after notification by the Engineer.

All traffic signals and existing interconnect cable shall be operational and actuated as specified in the Contract Documents.

Plan the work to minimize interference with any existing traffic control device.

MEASUREMENT AND PAYMENT. The payment will be full compensation for all material, labor, equipment, tools, and incidentals necessary to complete the work for one or more of the items specified in the Contract Documents.

Equipment Turn On. Equipment Turn On will not be measured but the cost will be incidental to other pertinent items specified in the Contract Documents.

Remove and Dispose of Existing Equipment. Remove and Dispose of Existing Equipment shall be measured and paid for on a per Each basis for each intersection in the project. The payment will be full compensation for all removal, hauling, excavation, backfill, seeding, mulching, disposal of excess or unsuitable material, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

Maintenance of Existing Signal Equipment. Materials storage, cable sealing and handling, adjustments to maintain minimum Administration standards on existing signals made necessary by new signal or geometric modifications and Contractor repair of any damaged detector caused as a result of Contractor's error will not be measured but the cost will be incidental to other pertinent items specified in the Contract Documents.

TRAFFIC

CONCRETE COLLAR FOR HANDBOX

DESCRIPTION. This work shall consist of constructing concrete collars on existing handboxes as per Maryland Standard Detail 811.03.

MATERIALS. Refer to Section 811.

CONSTRUCTION. Refer to Section 811.

MEASUREMENT AND PAYMENT. Concrete Collar for Handbox will be measured and paid for at the Contract unit price per each unless otherwise specified in the Contract Documents. The payment will be full compensation for all excavation, aggregate drain, concrete, bolts, bricks, pipes, backfill, sealer, frames and covers, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

TRAFFIC

PATCH HOLES ON SIGNAL POLES

DESCRIPTION. This work will consist of patching and painting holes on existing traffic signal poles and other supports due to removal or relocation of equipment.

MATERIALS. Not applicable.

CONSTRUCTION.

Repair Methods: Holes ½ inch or smaller shall be patched with epoxy bar filler, sanded smooth then primed and painted to match the original color of the painted pole, galvanized poles can be touched up with cold spray galvanized paint. Holes larger than ½ inch shall be plugged with a hard durable plastic caps similar in color to the existing pole.

MEASUREMENT AND PAYMENT. Patch Holes on Signal Poles will be measured and paid for at the Contract unit price per each. The payment will be full compensation for all material, labor, equipment, tools, and incidentals necessary to complete the work for one or more of the items specified in the Contract Documents.

TRAFFIC

REMOVE AND RELOCATE EXISTING PEDESTAL POLE

DESCRIPTION. Work consists of removing an existing pedestal pole, foundation, and associated traffic signals and hardware and installing the used pole on a new foundation per the project plans or as directed by the Engineer.

MATERIALS. Not applicable

CONSTRUCTION. Not applicable

MEASUREMENT AND PAYMENT. Relocate and Relocate Existing Pedestal Pole will be measured and paid for at the contract unit price per Each. The payment will be full compensation for removing existing pedestal pole and associated traffic signals and hardware, removing the existing pedestal pole foundation two feet below finish grade and installing the used pole on a new foundation per the project plans or as directed by the Engineer, as well as material, labor, equipment, tools, and incidentals necessary to complete the work.

TRAFFIC

SECTION 810 - ELECTRICAL CABLE, WIRE AND CONNECTORS

810.02 MATERIALS.

<u>ADD:</u> Cable Duct End Seals shall consist of a one-piece heat shrinkable device designed to provide a waterproof seal around the cable duct and each individual cable. The Cable Duct End Seal shall have separate entranceways for each cable, and shall hold the cables apart when applied.

810.03. CONSTRUCTION.

810.03.03 Preassembled Cable Duct

Delete: The second paragraph beginning "After backfilling..." in it's entirety.

INSERT: The following.

After backfilling demonstrate that the conductors move freely within the duct by pulling the conductors out a minimum of length of 2 ft. Pulling Tension shall conform to 810.03.02. The cable shall be then pulled to it's original position, and the Cable Duct End Seals installed. After installation of the Cable Duct End Seals, but prior to installing connector kits or splices, the electrical circuit testing shall be performed as specified in 820.03.02 (b) and the results recorded. The contractor shall record the length of cable, locations of both ends of the cable duct, and the insulation resistance on a form acceptable to the Engineer, and forward the form to the Engineer.

823.04 MEASUREMENT AND PAYMENT.

810.04.01

<u>ADD:</u> Preassembled Cable Duct that has not had the required electrical tests performed and reported to the engineer will not be measured or paid for.

ADD:

810.04.04 Cable Duct End Seals shall be measured and paid for at the contract unit price per each.

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CATEGORY 100 PRELIMINARY SECTION 813 — SIGNS 813 SIGNS. 813.03 MATERIALS.

<u>DELETE</u>: The first full pagagraph.

INSERT: The following.

Provide all hardware not provided by the City. Hardware shall be stainless steel. The contractor shall supply traffic signal related signs and their mounting hardware for span wire, mast arm, and signal pole mounted applications

TRAFFIC

SECTION 814 - SIGNAL HEADS

814.01 DESCRIPTION.

641 **ADD:** The following after the first paragraph.

Furnish and install Aluminum and Polycarbonate 8-in. and 12-in. vehicle traffic control signal heads and hardware with LED Green, Yellow, and Red indications, as specified in the Contract Documents or as directed by the Engineer. All signal housing shall have a black face and yellow housing.

814.02 MATERIALS.

ADD: The following to the end of the list of materials.

LED Traffic Signal Modules "Section 800 LED TRAFFIC SIGNAL

MODULES"

ALL Red and Green Traffic Signals COMAR 14.26.03

(LED or Incandescent) (Certification of compliance with Maryland

Energy Efficiency Standards)

814.04 MEASUREMENT AND PAYMENT.

ADD: The following after the first paragraph.

Aluminum and Polycarbonate LED Signal heads will be measured and paid for at the Contract unit price per each section of signal head type and size as specified in the Contract Documents. The LED signal heads will have the LED module fitted into the housing assembly. The payment will be full compensation for the housing, LED signal module, and, mounting hardware, assembly, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

MATERIALS

789 **DELETE:** SECTION 925 — DETECTABLE WARNING SURFACES in its entirety.

INSERT: The following.

SECTION 925 — DETECTABLE WARNING SURFACES

925.01 GENERAL. Detectable warning surfaces shall conform to the current accessibility guidelines of the Americans with Disabilities Act (ADA). The Office of Materials Technology (OMT) maintains a Qualified Products List (QPL). Manufacturers seeking inclusion of their product on the QPL shall submit certified test results showing conformance to the properties in 925.07, as well as installation instructions and the types of adhesives and sealants required.

925.02 COMPOSITION. Warning surfaces shall be either flexible or rigid. If there is a change in the composition of a qualified product, the manufacturer shall notify OMT and submit new test results showing conformance with 925.07.

925.02.01 Pavers. Type III Brick Pavers shall conform to the requirements of C 902, Class SX, Type 1, and Application PX. The pavers shall be $2-1/4 \times 4 \times 8$ in. with square edges and a surface meeting 925.03.

925.03 CONFIGURATION AND DIMENSIONS. The warning surface shall consist of a system of truncated domes having a base diameter of 0.9 in. to 1.4 in., a top diameter 50 to 65 percent of the base diameter, and a height of 0.2 in. The domes shall be arranged in a square grid with center-to-center spacing of 1.66 to 2.35 in.

925.04 COLOR. The color shall be homogeneous across the surface of the material and contrast with adjoining surfaces.

925.05 IDENTIFICATION. The top surface shall have an identifier that uniquely distinguishes the manufacturer. Brick pavers are excluded.

925.06 REQUIREMENTS.

ТҮРЕ	DESCRIPTION	PHYSICAL TEST REQUIREMENTS
Type I	Cast in Place	A, B, C, D, E, G
Type IIa	Surface Mount, Rigid	A, B, C, D, E, G
Type IIb	Surface Mount, Flexible	A, B, C, D, F, G
Type III	Brick Pavers	925.02.01
Type IV	Prefilled Pavers	A, B, C, D, G

925.07 PHYSICAL PROPERTIES.

	PROPERTY	TEST METHOD	SPECIFICATION LIMIT	
A	Slip Resistance Coefficient	C 1028 (dry method)	0.80 minimum	
В	Abrasive Wear, index	C 501	150 minimum	
С	Fade (UV) Resistance/Color Retention	D 4587	Fade or Change in color after 2000 hours less than ΔE =5*	
D	Freeze/Thaw Resistance	C 1026	No disintegration	
Е	Adhesion/Bond Strength, pull off	C 482/C 882(as appropriate)	No adhesion failure	
F	Adhesion/Bond Strength, peel	D 903/D 429 (modified as appropriate)	No adhesion failure	
G	Contrast	Contrast percentage formula** using E 1349 to determine cap Y brightness/light reflectance values (LRV)	Current ADA requirement***	

- * Chromaticity coordinates (L*a*b* system) checked in conformance with D 2244, before and after test.
- ** Contrast $\% = [(B_1 B_2)/B_1] \times 100,$
 - where $B_1 = (LRV)$ of the lighter area, and $B_2 = (LRV)$ of the darker area.
- *** For the purpose of determining whether a material meets acceptable contrast criteria, use actual cap Y brightness of detectable warning surface, and assume a value of 15 for the cap Y brightness of cured concrete, or a value of 3 for asphalt wearing surfaces to determine percentage difference. Detectable warning surfaces to be installed on other materials are required to undergo additional testing.

CATEGORY 900
MATERIALS
SECTION 950 — TRAFFIC MATERIALS

792 **DELETE**: 950.03 REFLECTORIZATION OF SIGNS AND CHANNELIZING DEVICES in its entirety.

INSERT: The following.

950.03 REFLECTORIZATION OF SIGNS AND CHANNELIZING DEVICES.

Provide retroreflective sheeting that meets the requirements of the latest version of ASTM D 4956 and is selected from the Administration's QPL. The type of sheeting to be used for different classifications of signs shall be as specified in the QPL and as described below.

Provide fluorescent colors, when yellow, orange or pink sheeting is specified. Color coordinates and values shall be as described in the MDMUTCD and 23 CFR Part 655, Subpart F, Appendix.

Provide non-reflective sheeting, when black sheeting is specified.

All sheeting for legend and backgrounds shall be from the same manufacturer and be a matched component system intended to be used together.

Use ASTM Type IV or VIII construction sheeting with a Class 1 backing for drums for maintenance of traffic. The sheeting must be reboundable as defined in the supplementary requirements of ASTM D 4956, latest version.

Use ASTM Type IV, V or VIII for delineators, and lane separator systems. Use ASTM Type IV, VI or VIII sheeting for cones for maintenance of traffic. The sheeting must be reboundable as defined in the supplementary requirements of ASTM D 4956, latest version.

Use ASTM Type VI sheeting with a Class 5 backing for Roll up signs for Maintenance of Traffic.

Use ASTM Type VIII, IX or XI sheeting for rigid temporary traffic signs.

Use ASTM Type IX or XI sheeting for Guide Signs, Exit Gore Signs, General Information Signs, School Signs, Warning Signs and Red Regulatory Signs.

Use ASTM Type IV, VIII, IX or XI sheeting for all other Regulatory Signs and for Route Markers.

Use ASTM Type I or higher sheeting for No Trespassing Signs, signs directed at Pedestrian Traffic, signs directed at Bicycle Traffic, R7 series Parking signs, R8 series Parking signs and supplemental panels for R7 and R8 series signs.

TRAFFIC MATERIALS SECTION 950.06 - ELECTRICAL CABLE AND WIRE

950.06.03 Cable Duct.

DELETE: Delete the last sentence of 950.06.03.

INSERT: The following.

Cable shall be type XHHW, rated for 600 volts.

CATEGORY 950 TRAFFIC MATERIALS SECTION 950.15 - TRAFFIC SIGNAL HEADS

804 **DELETE** the table and section titled Hardware in its entirety **INSERT** The following:

ITEM	DESCRIPTION	A	В	C	D
1	Aluminum Alloy - Casting	A 319	A 380	A 713	6063 T6
2	Yield Strength, ksi	18	23	25	25
3	Tensile Strength, ksi	27	47	35	30
4	Brinell Hardness	70	80	75	73
5	Elongation (% in 2 in.)	1.5	4	3	12
6	Stainless Steel	A 316	•	-	-
7	Galvanized Steel	A 157	A 153	G 60	-
8	Steel-Flat Sheet	l6 gauge	•	-	-
9	Coating	*	Anodized Finish	1	-
10	Brass	CZ120		-	-

* The signal head housing shall be yellow in conformance with Federal Standards 595, Color Chip No. 13538. The signal head door and visor shall be optical flat (dull) black Federal Standards 595, Color Chip No. 37038. Aluminum signal heads shall be painted using fusion bonded polyester coating method.

Hardware.

- (a) Hub plate shall conform to A, 1 thru 5 and 9B.
- (b) Span wire hanger clamp shall conform to C, 1 thru 5.
- (c) Balance adjuster body shall conform to 10A.
- (d) Balance adjuster eyebolt and hardware shall conform to 6A, 7A, and 7B.
- (e) 2-way lower arm shall conform to 7C and 8A.
- (f) 2-way tri-stud arm shall conform to A, 1 thru 5.
- (g) Span wire entrance fitting shall conform to C, 1 thru 5.
- (h) Mast arm mount signal bracket (1-way, 2-way, and 5-section) shall conform to 1A and 1D
- (i) Side pole upper and lower arm assembly shall conform to 1B thru 5B or 1D thru 5D. The maximum allowable play or space between the sides of the eyebolt and span wire clamp shall be 0.062 in.

808 **ADD** under **Electrical**

- **(f)** Terminal blocks screws shall be of the captive type secured by fasteners on the reverse side of the terminal block. Terminal block screws shall be a # 10 size.
- (g) Male spade terminal ends shall be furnished for each position on the terminal block angled at 45 degrees and perpendicular to the terminal block face.

CATEGORY 900 MATERIALS

SECTION 951 — PAVEMENT MARKING MATERIALS

951.06 HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT

MARKING MATERIAL. The material shall be highly durable retroreflective polymeric materials designed for use as transverse lines, numbers, legends, symbols and arrow markings subjected to high traffic volumes and severe wear conditions such as shear action from crossover or encroachment.

The applied material shall adhere to hot mix asphalt (HMA), open-grade friction courses (OGFC), stone matrix asphalt (SMA), portland cement concrete (PCC), and any existing pavement markings when applied using normal heat from a propane fueled heat gun in conformance with manufacturer's recommendations.

The applied material shall be capable of conforming to pavement contours, breaks and faults, shall not be affected by weather conditions, and shall remain in place on pavement surfaces without being displaced by traffic.

The material shall have a minimum shelf life of one year.

The material shall conform to the requirements of the MDMUTCD and the following:

- (a) Composition. The material shall consist of polymeric materials, pigments, binders and glass beads distributed throughout the entire cross-sectional area. The thermoplastic material shall conform to M 249 with the exception of the relevant differences for the material being supplied in the preformed state.
 - **Restrictions.** The combined total of lead, cadmium, mercury and hexavalent chromium shall not exceed 100 ppm when tested by X-ray diffraction, ICP, or comparable method capable of this level of detection. Nonleachable lead based pigments will not be permitted. Diarylide type pigments shall only be used when the manufacture or pavement marking material application temperature does not exceed 392 F.
- **(b) Color.** Preformed markings shall consist of film with pigments selected and blended to match Federal Standard 595 color chip Nos. 17886 and 13538 for white and yellow respectively.
- **(c) Frictional Resistance.** The surface of the applied material shall provide a minimum average skid resistance value of 50 BPN when tested in conformance with E 303.
- (d) **Patchability.** The material shall be capable of use for patching worn areas of the same type in conformance with manufacturer's recommendations.
 - (e) **Thickness.** The minimum thickness, without adhesive, shall be 120 mils.
 - **(f) Adhesion.** The material shall retain a minimum of 65 percent adhesive bond after 100 cycles of freeze-thaw when tested in conformance with C 666, Method B.
 - (g) Beads.
 - (1) **Index of Refraction.** All beads shall meet the general requirements of M 247, Type I, and shall have a minimum index of refraction of 1.50 when tested using the liquid oil immersion method specified in MSMT 211.
 - (2) Acid Resistance. A maximum of 15 percent of the beads shall show a formation of a distinct opaque white layer on the entire surface after exposure to a 1 percent solution (by weight) of sulfuric acid in conformance with MSMT 211.

Field Testing. Materials conforming to this Specification shall be field tested at AASHTO regional test facilities, such as National Transportation Product Evaluation Program (NTPEP), for performance.

Materials performing satisfactorily throughout the test period, including exhibiting a minimum retained reflectance of 100 mcd/m²/lux at the completion of the testing, will be placed on the Prequalified Materials List maintained by the Office of Materials and Technology.

Certification. Any marking material supplied during the Contract shall be identical in composition to the material submitted for initial testing. Samples submitted for testing shall be accompanied by the manufacturer's certified analysis in conformance with TC-1.03.

STANDARD DETAILS

The following list of Maryland SHA Standard Details are included that are expected to be frequently referenced on this project. This is not an all-inclusive list; there are other details that are not included that the contractor will need to reference.

List of Maryland SHA Standard Details Included in Attachment 1

- 1. MD 104.02-02
- 2. MD 104.02-14
- 3. MD 104.02-15
- 4. MD 104.03-10
- 5. MD 104.03-12
- 6. MD 104.04-02
- 7. MD 104.04-04
- 8. MD 104.04-06
- 9. MD 104.04-14
- 10. MD 817.01
- 11. MD 655.12
- 12. MD 655.40
- 13. MD 801.01-01
- 14. MD 811.01
- 15. MD 811.03

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Rockville APS Special Details

Item No.	Units	Quantity	Descriptions	Maryland State Highway Administration Specification Reference
1001	LS	1	MOBILIZATION	108
1002	LS	1	MAINTENANCE OF TRAFFIC	Special Provision
2001	CY	33	TEST PIT EXCAVATION	205
5001	LF	150	REMOVAL OF EXISTING PAVEMENT MARKINGS	Special Provision
5002	LF	260	12 INCH WHITE HEAT APPLIED THERMOPLASTIC MARKINGS	Special Provision
6001	LF	650	TYPE D COMBINATION CURB AND GUTTER, 12 INCH GUTTER PAN, 6 INCH DEPTH	602
6002	SF	6650	5 INCH CONCRETE SIDEWALK	603
6004	SF	450	DETECTABLE WARNING SURFACE FOR CURB RAMP	611
8001	EA	7	APS CENTRAL CONTROL UNIT	Special Provision
8002	EA	7	REMOVE AND DISPOSE OF EXISTING EQUIPMENT	Special Provision
8003	CY	11.61	CONCRETE FOR SIGNAL FOUNDATION	801
8004	LF	510	NO. 6 STRANDED BARE COPPER GROUND WIRE	810
8005	EA	1	GROUND ROD 3/4 INCH DIAMETER, 10 FOOT LENGTH	804
8006	LF	465	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	805
8007	LF	6450	2 CONDUCTOR ELECTRICAL CABLE NO. 14 AWG	810
8008	LF	6600	5 CONDUCTOR ELECTRICAL CABLE NO. 14 AWG	810
8009	EA	1	ELECTRICAL HANDHOLE	811
8011	EA	12	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD W/HARDWARE	Special Provision
8012	EA	44	APS AND R10-3(1) SIGN (9" X 15") W/ HARDWARE Special I	
8013	EA	26	5 FOOT STEEL PEDESTRIAN PEDESTAL POLE	Special Provision
8014	EA	8	10 FOOT STEEL PEDESTRIAN PEDESTAL POLE Special Prov	
8015	EA	24	CONCRETE COLLAR FOR HANDBOX Special Prov	
8016	SF	71	RELOCATE SIGN 822	
8018	EA	32	COUNTDOWN PEDESTRIAN SIGNAL HEAD INSERT Special Pr	
8019	LF	185	85 2 CONDUCTOR ELECTRICAL CABLE NO. 12 810	

			AWG TRAY CABLE		
8021	EA	25	PATCH HOLES ON SIGNAL POLE	Special Provision	
8023 EA		EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL	Special Provision	
0023	0023 EA		12 HEAD (BLACK FACE)		
8024	EA	FΔ	REMOVE AND RELOCATE EXISTING PEDESTAL	Special Provision	
0024	LIT	2 POLE		Special Trovision	
8025	SF	50.5	OVERHEAD SIGN	813	
8026	LF	140	STANDARD TYPE "A" CURB	602	
8027	CY	4	REMOVE EXISTING SIDEWALK 20		
8028	SF	160	RESET BRICK PAVERS	Special Provision	

SECTION VI - INSURANCE REQUIREMENTS REV2 (09/08)

- 6.1 Prior to the execution of the contract by the City, the Contractor must obtain at its own cost and expense and keep in force and effect during the term of the contract including all extensions, the following insurance with an insurance company/companies licensed to do business in the State of Maryland evidenced by a certificate of insurance and/or copies of the insurance policies. The Contractor's insurance shall be primary. The Contractor must submit to the Purchasing Division, 111 Maryland Avenue, Rockville, MD 20850 the certificate of insurance with all endorsement prior to the submittal of the recommendation for formal award by the Mayor and Council.
- In no event may the insurance coverage be less than shown below. Unless otherwise described in this contract the successful contractor and subcontractors will be required to maintain for the life of the contract and to furnish the City evidence of insurance as follows:

6.3 Mandatory Requirements For Insurance:

Contractor's insurance coverage shall be primary insurance as respects the City, its elected and appointed officials, officers, consultants, agents and employees and any insurance or self-insurance maintained by the City, shall be excess of the Contractor's insurance and shall not be called upon to contribute with it.

Ty	pe of Insurance	Amounts of Insurance	Endorsements and Provisions
1.	Workers'	Bodily Injury by	Waiver of Subrogation:
Co	mpensation	Accident:	WC 00 03 13 Waiver of Our Rights to
2.	Employers' Liability	\$100,000 each accident	Recover From Others Endorsement
			signed and dated.
		Bodily Injury by Disease:	
		\$500,000 policy limits	
		Bodily Injury by Disease:	
		φ100 000 1 1	
		\$100,000 each employee	
3.	Commercial General	Each Occurrence:	City shall be listed as additional insured and
3.			_
	Liability	\$1,000,000	provided 30 day notice of cancellation or
	D 1'1 T '		material change in coverage.
a.	Bodily Injury		CG 20 37 07 04 and CG 20 10 07 04 forms
b.	Property Damage		to be both signed and dated.
c.	Contractual Liability		
d.	Premise/Operations		
e.	Independent		
	Contractors		

f.	Products/Completed Operations		
g.	Personal Injury		
4.	Automobile Liability	Combined Single Limit for Bodily Injury and	City shall be listed as additional insured and provided 30 day notice of cancellation or
a.	All Owned Autos	Property Damage -	material change in coverage.
b.	Hired Autos	(each accident):	Form CA20 48 02 99 form to be both
c.	Non-Owned Autos	\$1,000,000	signed and dated.
5.	Excess/Umbrella	Each	City shall be listed as additional insured and
	Liability	Occurrence/Aggregate:	provided 30 day notice of cancellation or
		\$1,000,000	material change in coverage.
6.	Professional Liability	Each	
		Occurrence/Aggregate:	
		\$1,000,000	

6.4 Alternative and/or additional insurance requirements, when outlined under the special provisions of this contract, shall take precedence over the above requirements in part or in full as described therein.

6.5 Policy Cancellation

No change, cancellation or non-renewed shall be made in any insurance coverage without a 30 day written notice to the City Purchasing Division. The Contractor shall furnish a new certificate prior to any change or cancellation date. The failure of the Contractor to deliver a new and valid certificate will result in suspension of all payments and cessation of on-site work activities until a new certificate is furnished.

6.6 Additional Insured

The Mayor and Council of Rockville, which includes its elected and appointed officials, officers, consultants, agents and employees must be named as an additional insured on the Contractor's Commercial and Excess/Umbrella Insurance for liability arising out of contractor's products, goods, and services provided under this contract. Additionally, The Mayor and Council of Rockville must be named as additional insured on the Contractor's Automobile and General Liability Policies. Endorsements reflecting the Mayor and Council of Rockville as an additional insured are required to be submitted with the insurance certificate.

6.7 Subcontractors

All subcontractors shall meet the requirements of this Section before commencing work. In addition, Contractor shall include all subcontractors as insureds under its policies or shall furnish

separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

6.8 The City will consider the failure by the Contractor to maintain the Mandatory Insurance coverages a material breach of contract.

6.9 Certificate Holder

The Mayor and Council of Rockville (Contract #, title) City Hall 111 Maryland Avenue Rockville, MD 20850

END OF SECTION VI

SECTION VII - CONTRACTUAL TERMS AND CONDITIONS

- **7.1 TERMS AND CONDITIONS:** The terms and conditions of this document govern in event of conflict with any terms of the bidder's proposal, and are not subject to change by reasons of written or verbal statement by the contractor unless accepted in writing. Words and abbreviations which have well known technical or trade meanings are used in accordance with such meanings.
- **7.2 RESPONSIBILITY:** In determining the responsibility of a bidder, the following criteria will be considered:
 - a. The ability, capacity and skill of the bidder to perform the contract or provide the services required;
 - b. Whether the bidder can perform the contract or provide the service promptly, or within the time specified, without delay or interference;
 - c. The character, integrity, reliability, reputation, judgment, experience and efficiency of the bidder;
 - d. The quality of performance on previous contracts or services;
 - e. The previous and existing compliance by the bidder with laws and ordinance relating to the contract or service:
 - f. The sufficiency of the financial resources and ability of the bidder to perform the contract or provide the service;
 - g. The quality, availability and adaptability of the goods or services to the particular use required;
 - h. The ability of the bidder to provide future maintenance and service for the use of the subject of the contract;
 - i. Whether the bidder is in arrears to the City or a debt or contract or is in default on a surety to the City;
 - j. Such other information as may be secured by the City having a bearing on the decision to award the contract.
- 7.3 ELECTRONIC PAYMENT: The City of Rockville pays its contractors via an Automatic Clearing House (ACH) process in lieu of check payments delivered by the US Postal Service. The ACH process allows the Contractor to have its payment deposited directly to a designated financial institution account. A Contractor must complete and submit an ACH application (available at http://www.rockvillemd.gov/DocumentCenter/View/429) prior to receiving any payment from the City.

7.4 SENSITIVE DOCUMENTS:

- A. All project participants needing either electronic or hardcopy documents dealing with critical facilities or sensitive information will be required to make application with, and receive approval from the City prior to receiving this information. Permission to receive said documents (herein referred to as "sensitive") will pertain only to the individual approved. Sensitive documents (either electronic or hardcopy documents dealing with critical facilities or sensitive information) received from the City must be handled consistent with the terms of non-disclosure required for application. Contractor is responsible to restrict use of sensitive documents to project participants only and shall take appropriate measure to prevent distribution of sensitive document to anyone inside or outside of the Contractor's company except Contractor's project participants. After completion of the project, all sensitive documents remaining in the Contractor's possession shall continue to be governed under the terms of non-disclosure and must continue to be stored in a secure manner. After such records are no longer needed for record purposes, the records shall be destroyed or returned to the City.
- B. Where services require the Contractor to access the City's electronic information resources and/or its electronic data assets, the Contractor shall adhere to all requirements, terms and conditions of the City's Contractor/Vendor On-Site and Remote Access Confidentiality Agreement, which can be viewed at the following web address:

http://www.rockvillemd.gov/business/Rockville_Confidentiality_Policy.pdf.

- C. The Contractor shall not copy, display to other parties, or distribute City owned programs, proprietary data or information without the express written permission from the City.
- D. "Sensitive" documents and information are defined as those that could reasonably be used to aid in or plan for contaminating or damaging the City's system or City customers. Examples of such documents include, but are not limited to:
 - 1. plans/blueprints, as-built drawings, or contract documents of City facilities
 - 2. plans/blueprints, as-built drawings, contract documents, or 200-foot sheets of the water distribution system or the wastewater collection system
- E. For any document or information to be provided to the Contractor where there is uncertainty whether it is "sensitive", the City shall have sole discretion to make such determination.
- 7.5 RISK OF LOSS AND CONDITION OF SITE: The City makes no representation and assumes no responsibility for the condition of the site or applicable structures on the site. The contractor shall accept the site and the contents thereon in the condition in which they are represented. Any damages or loss whatsoever while the contract is in effect (whether by reason of fire, theft, breakage or other happenings) shall not relieve the Contractor from any obligations under this contract. The Contractor shall store any materials on site as not to damage the materials and shall maintain such storage areas, as directed by the City, in hazard free condition.

7.6 SUBCONTRACTORS:

- A. The Contractor shall have the right to sub-contract, but shall be fully responsible and cannot be relieved of any liability under this contract on account of any sub-contractor. All sub-contracting must have prior written City approval. The City reserves the right to approve or reject any sub-contractor.
- B. Nothing contained in the contract documents shall create any contractual relationship between the owner and any subcontractor or sub-subcontractor. Vendors who will subcontract the delivery, installation, or any other portion of the work herein described will submit, prior to construction, the following information:
- C. A description of the items to be subcontracted, and the subcontractor's name, address, and telephone number. During the life of the contract, the Contractor shall provide the name, nature, and extent of all subcontractors.
- D. Subcontractors shall be considered an agent of the Contractor, who shall be held fully accountable for all of the subcontractor services, labor, and materials relative to the contract.
- 7.7 LEGAL REQUIREMENTS: All materials, equipment, supplies and services shall conform to applicable Federal, State, County and City laws, statutes, rules and regulations. The Contractor shall observe and comply with all Federal, State, County and City laws, statutes, rules and regulations that affect the work to be done. The provisions of this contract shall be governed by the laws of the State of Maryland.
- **7.8 INDEMNIFICATION OF THE MAYOR AND COUNCIL:** The Contractor shall indemnify and save harmless the Mayor and Council from all suits, actions and damages or costs, of every name and description to which the Council may be subjected or put by reason of injury to persons or property as a result of the work, whether caused by negligence or carelessness on the part of the Contractor, or subcontractors or agents thereof.
- **7.9 PERFORMANCE:** Time is of the essence. The Contractor shall expedite the work and achieve substantial completion within the contract time. The City will reject defective or unsuitable materials or workmanship, and shall be made good by the Contractor, not withstanding that such materials/workmanship have been previously been overlooked and accepted.

7.10 CHANGES IN QUANTITIES/ITEMS:

A. The City reserves the right to add or delete any item(s) from the bid in whole or in part at the City's discretion as given in the Bid or Proposal wherever it deems it advisable or necessary so to do and such changes shall in no way vitiate the contract nor affect the bid prices for any item or remaining work. Unit prices submitted in the bid shall not be increased or decreased regardless of changes in quantity, unless otherwise mutually agreed to by the parties. The City may waive

- minor differences in specifications in bids provided these differences do not violate the specifications' intent nor materially affect the operation for which the items or services are being purchased
- B. The Contractor will be paid for the actual amount of authorized work done or material furnished under any item of the bid at the price bid and stipulated for such item. In case any quantity is increased, the Contractor shall not be entitled to any increased compensation over and above the unit price bid for such item unless otherwise mutually agreed to by the parties. The Contractor shall be responsible for confirming the accuracy of the specified quantities prior to ordering materials or supplies and the City's payment shall be based on the actual quantities incorporated in the work and not the quantities specified in the bid document. The quantities must not exceed the Contract specified quantities without specific written authorization of the Project Manager and it is the Contractor's responsibility to obtain said authorization.
- **7.11 MATERIALS:** All materials shall be new, free from defects, and be standard products of current manufacture. Unless otherwise noted in the contract documents, the Contractor shall abide by specific manufacturer instructions and recommendations on installation and operation.
- 7.12 BRAND NAME OR EQUAL: Identification of an item by manufacturer's name, trade or brand name, or catalog number is for information and establishment of a quality level desired and is not intended to restrict competition. Bidders may offer any brand which meets or exceeds the specification, unless 'brand name only' is specified. Bids on other makes and/or models will be considered provided the bidder clearly states on the proposal what is being proposed and forwards with the bid complete descriptive literature indicating how the characteristics of the article being offered will meet the specifications. The City reserves the right to accept or reject items offered as an equal.
- 7.13 DEFECTIVE MATERIALS/WORKMANSHIP: Defective or unsuitable materials or workmanship shall be rejected and shall be made good by the Contractor. If the work shall be found to be defective or to have been damaged before final acceptance, the Contractor shall make good such defect in a manner satisfactory to the City, without extra compensation even though said defect or injury may have not been due to any act or negligence of the Contractor.
- 7.14 <u>TIME OF BEGINNING AND COMPLETION:</u> Unless otherwise stipulated in the bid document, the Contractor shall begin work on the Contract within 10 working days after the date of the Notice to Proceed and shall diligently prosecute the same, so that it shall be fully completed within the time as stated in the contract.
- 7.15 AUTHORITY OF THE CITY MANAGER IN DISPUTES: Except as may otherwise be provided by the final agreement, any dispute concerning a question of fact arising under the agreement signed by the City and the Contractor which is not disposed of by the final agreement shall be decided by the City Manager who shall notify the Contractor in writing of its determination. The Contractor shall be afforded the opportunity to be heard and offer evidence in support of the

claim. Pending final decision of the dispute herein, the Contractor shall proceed diligently with performance under the agreement signed by the City and the Contractor. The decision of the City Manager shall be final and conclusive unless an appeal is taken pursuant to the City Purchasing Ordinance.

- as to complete all work within the time allotted in the bid document. The completion date as set in the bid document allows for inclement weather, holidays and coordination with other companies. If the Contractor is delayed in the delivery of the supplies, equipment or services by any act of neglect of the City or by a separate Contractor employed by the City, or by any changes, strikes, lockouts, fires, unusual delays in transportation or delay authorized by the City, the City shall review the cause of such delay and shall make an extension of time if warranted. All claims for extensions must be in written notice sent to the Project Manager within 10 calendar days after the date when such alleged cause for extension of time occurred. All such claims shall state specifically the amount of time of the delay the Contractor believes to have suffered. If written notice is not received within the prescribed time the claim shall be forfeited and invalidated.
- 7.17 CONTRACT DELAYS NO DAMAGE CLAIMS ACCEPTED: The Contractor shall make no claim for extra monetary compensation for delays, whether ordered by the City or not, caused by delays in funding, governmental approvals, private or public companies' actions, inclement weather, site conditions, or from any cause whatsoever. The Contractor shall adjust its operation to continue the work at other locations under the contract, if available, and as directed by the City. If it is necessary to discontinue the work temporarily, the Contractor shall resume work within 48 hours of notice from the City. The City may adjust the completion date to compensate for the lost day(s) on a day-for-day basis, if the City finds that the Contractor could not make up for such lost day(s) by reallocating its forces or rescheduling the work, up to the time remaining on the original schedule at the time of shutdown.

7.18 PROGRESS SCHEDULE AND SCHEDULE OF OPERATIONS:

A. The construction of this project will be planned and recorded with an Activities Chart Project Schedule (AC) and Written Narrative (WN) unless specifically determined to be unnecessary by the Project Manager. The AC Project Schedule and Written Narrative will break down, in detail, the time (working days or completion date) involved in performing major construction activities for the duration of the project. The AC Project Schedule shall be used for the coordination and monitoring of major work under the contact including the activities of subcontractors, vendors and suppliers. The AC Project Schedule shall be prepared in accordance with the requirements of the Maryland State Highway Administration Standard Specifications for Construction and Materials dated January 1982, and the errata and addend thereto, subsequent supplement(s) and the Special Provisions as set forth in this Invitation for Bids, unless otherwise directed or approved by the Project Manager. The schedule shall be consistent with the contract specified completion date(s) and/or working days. The Contractor is responsible for preparing the initial AC Project Schedule and Written Narrative.

- B. <u>Preparation of Initial Schedule</u> Within 10 calendar days after notification that the Contractor is the apparent successful bidder, the Contractor will complete development of a initial AC Project Schedule and Written Narrative (describing the logical time representations as proposed in the AC Project Schedule), and submit 2 (two) copies of each AC and WN to the Project Manager for review and approval.
- C. <u>Updating Project Schedule:</u> At any time that it becomes apparent the schedule, created as above and approved by the Project Manager, is not being implemented, either because the work or service is ahead or behind schedule, the Contractor shall immediately notify the Project Manager and shall submit a revised, written, updated AC and WN for the Project Manager's review, revision and approval The contractor shall make every effort to meet the original completion date and/or working days allowed unless otherwise so directed by the Project Manager.
- D. <u>Payment for Schedule AC/WN:</u> No special compensation will be paid for preparing or revising the above project AC/WN as the cost shall be considered incidental to the contract with compensation incorporated into the bid items(s).

7.19 CONTRACT DOCUMENTS:

- A. The contract documents are complementary and what is required by any one shall be binding as if required by all. Words and abbreviations that have well known technical or trade meanings are used in the contract documents in accordance with such recognized meanings. On drawings, the figured dimensions shall govern in the case of discrepancy between the scales and figures. Anything shown on the construction plans and not mentioned in the specifications or mentioned in the specifications and not shown on the plans shall have the same effect as if shown or mentioned respectively in both.
- B. Prior to submitting its bid proposal, it is solely the Bidder's responsibility to obtain clarification of all questions which may have arisen as to intent of the solicitation / contract document, or any actual conflict between items in the solicitation / contract documents. Should the Bidder fail to obtain such clarification and is awarded a contract, then the City may direct that the work proceed by any method indicated, specified or required, in the judgment of the City, by the contract documents. Such direction by the City shall <u>not</u> constitute the basis for a claim for extra costs by the Contractor. The Contractor acknowledges that it had the opportunity to request clarification prior to submitting its bid to the City and that it is not entitled to a claim for extra cost as a result of failure to receive such clarification.
- C. Any discrepancies which may be discovered during the execution of work between actual conditions and those represented by the contract documents shall be reported to the City and work shall not proceed until written instruction has been received by the contractor from the City.

- **7.20 INTERPRETATION:** Any questions concerning the technical specifications and drawings, terms, conditions and definitions of this Invitation For Bid shall be directed in writing to the Purchasing Manager. The submission of a bid shall be prima facie evidence that the bidder thoroughly understands the terms of the contract documents. The Contractor shall take no advantage of any error or omission in these contract documents.
- **T.21** EMERGENCY CONTACT: The Contractor shall provide at least two local telephone numbers which may be used for contacting an official of the Contractor at all times, 24 hours per day, seven days per week: at which numbers person(s) of responsibility will be available to respond to City directives relative to the contract. The Contractor shall have available sufficient personnel and equipment to immediately respond to emergency needs, as determined by the City. There will be no special compensation paid for this requirement but the cost shall be considered incidental to the other contract pay items.
- 7.22 SUPERVISION AND DIRECTION OF WORK: The work shall be under the general supervision of the Project Manager. While it is intended that the Contractor shall be allowed in general to carry on the contract in accordance with such general plan as may appear to the Contractor most desirable, the Project Manager, at the Project Manager's discretion, may from time to time, direct the order in which, and points at which, the work shall be prosecuted and may exercise such general control over the conduct of the work at a time or place, as shall be required, in the Project Manager's opinion, to safeguard the interests of the City, and the Contractor shall have no claims for damages or extra compensation on account of the fact that it shall have been necessary to carry on the work in different sequence from that which the Contractor may have contemplated. The Contractor shall immediately comply with any and all orders and instructions given by the Project Manager, but nothing herein contained shall be considered such an assumption of control over the work by the City or the Project Manager as to relieve the Contractor of any obligations or liabilities under the contract.
- 7.23 INSPECTION: Work and materials will be inspected promptly to see that the same strictly correspond with the drawings and specifications, but if, for any reason, delay should occur in connection with such inspection, the Contractor shall have thereby no claim for damages or extra compensation. Materials and workmanship shall be always subject to the approval of the Project Manager, but no inspection, approval or acceptance of any part of the work or of the materials used therein, nor any payment on account thereof shall prevent the rejection of said materials or work at any time thereafter, should said work or materials be found to be defective or not in accordance with the requirements of the contract. Any costs for any "re-inspection" of the job shall be the responsibility of the contractor.
- **7.24 TERMINATION FOR DEFAULT:** The contract may be cancelled or annulled by the City in whole or in part by written notice of default to the Contractor upon nonperformance or violation of contract terms and an award made to next low Bidder, or, articles specified may be purchased on the open market similar to those so terminated. In either event, the defaulting Contractor (or its surety) shall be liable to the City for costs to the City in excess of the defaulted contract prices: provided,

that the Contractor shall continue the performance of this contract to the extent not terminated under the provisions of this clause.

- **7.25 TERMINATION FOR CONVENIENCE:** This Contract may be terminated, in whole or in part, upon written notice to the Contractor when the City determines that such termination is in its best interest. The termination is effective 10 days after the notice is issued, unless a different time is given in the notice. The City is liable only for payment for goods and services delivered and accepted or approved by the City prior to the effective date of the termination.
- **7.26 EMPLOYEES:** The Contractor shall employ only competent, skillful persons to do the work, and whenever the Project Manager shall notify the Contractor in writing that any person employed on the work is, in its opinion, incompetent, disobedient, disorderly, discourteous or otherwise unsatisfactory, such person shall be discharged from the work and shall not again be employed for this contract except with the consent of the Project Manager.

7.27 NON-WORK DAYS:

- A. The City observes the following holidays: New Year's Day, Martin Luther King's Birthday, President's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Thanksgiving Friday and Christmas Day, all days of general and congressional elections throughout the State, and a five-day work week.
- B. The Contractor will not be permitted to do any work which requires the services of the City's inspection, supervisory or line and grade forces on the days on which the above mentioned holidays are observed by the City or on Saturdays or Sundays, unless otherwise authorized by the Project Manager in writing. However, the Contractor, with verbal permission of the Project Manager, may be permitted to perform clean up and such other items for which no specific payment is involved on Saturdays and holidays.
- C. The normal number of working hours per day on this Contract will be limited to eight, unless otherwise authorized by the Project Manager in writing.
- D. In case of an emergency, which may require the services of the City on Saturdays, Sundays, holidays or longer than eight hours per day, the Contractor shall request permission of the Project Manager to work. If, in the opinion of the Project Manager the emergency is bona fide, the Project Manager will grant permission to the Contractor to work such hours as may be necessary. Also, if in the opinion of the Project Manager, a bona fide emergency exists, the Project Manager may direct the Contractor to work such hours as may be necessary whether the Contractor requests permission to do so or not.
- **7.28 LANGUAGE:** The Contractor shall appoint one or more crewmembers or supervisors to act as liaison with the City and emergency services personnel. All liaisons shall be fluently bilingual in American English and the Contractor's employees' language(s), and at least one liaison shall be

present at each work site at all times when any of the Contractor's employees or agents are at the site.

7.29 IMMIGRATION REFORM AND CONTROL ACT:

- A. The Bidder awarded a contract pursuant to this IFB shall warrant that it does not and shall not hire, recruit or refer for a fee, for employment under the contract, an alien knowing the alien is an unauthorized alien and hire any individual without complying with the requirements of the Immigration Reform and Control Act of 1986 (the Act), including but not limited to any verification and record keeping requirements. The Bidder shall further assure the City that, in accordance with the Act, it does not and will not discriminate against an individual with respect to hiring, or recruitment or referral for a fee, of the individual for employment or the discharging of the individual from employment because of such individual's national origin or in the case of a citizen or intending citizen, because of such individual's citizenship status.
- B. The Bidder awarded a contract pursuant to this IFB (Contractor) will not discriminate against any employee or applicant because of race, creed, **color**, sex, national origin or disability. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, sex, national origin or disability. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment, layoff or termination, rates of pay or other form of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
- C. If the Contractor fails to comply with nondiscrimination clauses of this contract or fails to include such contract provisions in all subcontracts, this contract may be declared void AB INITO, cancelled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further contracts with the City of Rockville. Any employee, applicant for employment, or prospective employee with information concerning any breach of these requirements may communicate such information to the City Manager who shall commence a prompt investigation of the alleged violation. Pursuant to such investigation, the Contractor will permit access to the Contractor's books, records, and accounts. If the City Manager concludes that the Contractor has failed to comply with nondiscrimination clauses, the remedies set out above may be invoked.
- 7.30 ETHICS REQUIREMENTS: In accordance with the City's financial disclosure and ethical conduct policy and/or ordinances a prerequisite for payment pursuant to the terms of this contract is that the Contractor may be required to furnish explicit statements, under oath, that the City Manager, and/or any other officer, agent, and/or employee of the City, and any member of the governing body of the City of Rockville or any member or employee of a Commission, Board, or Corporation controlled or appointed by the City Council, Rockville, Maryland has not received or has not been promised directly or indirectly any financial benefit by way of fee, commission, finder's

fee, or in any other manner, remuneration arising from directly or indirectly related to this contract, and that upon request by the City Manager, or other authorized agent, as a prerequisite to payment pursuant to the terms of this contract, the Contractor will furnish to the Mayor and Council of the City of Rockville, under oath, answers to any interrogatories to a possible conflict of interest has herein embodied.

- 7.31 DRAWINGS TO BE FOLLOWED: The approved drawings, profiles and cross sections on file with the City will show the location, details and dimensions of the work contemplated, which shall be performed in strict accordance therewith and in accordance with the specifications. Any deviations from the drawings or specifications as may be required by the exigencies of construction in all cases will be determined by the Project Manager. There shall be no such deviations without the written authorization of the Project Manager. On all drawings, etc., the figured dimensions shall govern in the case of discrepancy between the scales and figures. The Contractor shall take no advantage of any error or omission in the drawings or specifications. The Project Manager shall make such corrections and interpretations as may be deemed necessary for the fulfillment of the intent of the specifications and of the drawings as construed by the Project Manager whose decision shall be final.
- **7.32 CERTIFICATION:** Under no circumstances will Contractors be paid for materials utilized on any City contract unless certified to by the Project Manager. The Contractor must not incorporate any materials into a City project without prior authorization and certification of the Project Manager, unless necessary to eliminate or avoid hazardous conditions. Under these emergency circumstances the responsibility for notification to the Project Manager and quantity/quality confirmation rests with the Contractor and must be obtained within 24 hours of the work.
- shall make all necessary explanations as to the meaning and intent of the specifications and drawings, and shall give all orders and directions, either contemplated therein or thereby, or in every case in which a difficult or unforeseen condition arises during the prosecution of the work. Should there be any discrepancies or should any misunderstanding arise as to the intent of anything contained in the drawings and specifications, the decision of the Project Manager shall be final and binding. The Project Manager shall in all cases determine the amount, quality, acceptability and estimates of the work to be paid for under the Contract, and shall decide all questions in relation to the work. In case any questions arise between parties relating to the Contract, such decision and estimate shall be a condition precedent to the right of the Contractor to receive payment under that part of the Contract which is in dispute.
- 7.34 WORK TO BE DONE AND MATERIALS TO BE FURNISHED: The Contractor shall do all the work and furnish all the labor, materials, tools, and equipment necessary or proper for performing the work required by the Contract, in the manner called for by the drawings and specifications and within the Contract time. The Contractor shall complete the entire work together with such extra work as may be required, at the prices fixed therefore, to the satisfaction of the Project Manager and in accordance with the specifications and drawings.

- 7.35 NOTIFICATION TO OTHER AGENCIES: The Contractor will be responsible for notifying all concerned agencies affected by the work a minimum of 48 hours in advance of any activity, as prescribed by said agencies, including, but not limited to: the Washington Gas, PEPCO, Verizon, Comcast Cable, Transcontinental Gas, City of Rockville Utilities Division, Montgomery County Government, State Highway Administration and the Washington Suburban Sanitary Commission. The Contractor must notify MISS UTILITY at 1-800-257-7777 a minimum of 72 hours and no more than 5 working days prior to removal of any pavement or beginning any excavation. There shall be no measurement or direct payment to the Contractor for such notification, working around, the protection of, or repair of damage to such existing utilities caused by the proposed construction activities directly or indirectly.
- <u>7.36</u> PERMITS AND REGULATIONS: Unless stipulated elsewhere in these specifications, the Contractor shall be responsible for obtaining and paying for all applicable permits. Where signatures of the City are required in connection with the obtaining of such permits, certificates, etc., the Contractor shall prepare the proper paperwork and present it to the City for signature. City of Rockville Permit fees shall be waived. If the Contractor ascertains at any time that any requirement of this contract is at variance with applicable laws, ordinances, regulations and/or building codes, notification to the Project Manager shall be made immediately and any necessary adjustment to the contract shall be made. Without proper notice to the Project Manager, the Contractor shall bear all costs arising from the performance of work the Contractor knows to be contrary to such laws, ordinances, etc.
- <u>7.37</u> EXCAVATION: Unless specifically provided in the specifications, all trench and roadway excavation is hereby unclassified as to the character of materials. The lump sum or unit price, as specified, for or including excavation shall constitute full payment for removal and disposal of all materials, regardless of type, encountered in trenching and roadway excavation, within the limits of this Contract, as necessary and as shown to be removed on the Contract drawings and/or as directed by the Project Manager, except as otherwise provided for under this Contract. All bidders are hereby directed to familiarize themselves with all site conditions including subsurface and the proximity of adjacent features.
- 7.38 SERVICE OF NOTICES: The mailing a written communication, notice or order, addressed to the Contractor at the business address filed with the City, or to its office at the site of the work shall be considered as sufficient service upon the Contractor of such communication, notice or order; and the date of said service shall be the date of such mailing. Written notice shall also be deemed to have been duly served if delivered in person to the individual or member of the firm or to any officer of the corporation for whom it was intended if delivered or sent by registered or certified mail to the last known address.

7.39 INTELLECTUAL PROPERTY:

- A. Whenever any article, materials, equipment, process, composition, means, or things called for by these specifications is covered by letters of patent, the successful bidder must secure, before using or employing such article, material etc., the assent in writing of the Owner or Licensee of such Letters of Patent and file the same with the City.
- B. The said assent shall cover not only the use, employment, and incorporation of said article, material, equipment, process, composition, combination, means, or thing in the construction and completion of the work but also the permanent use of said article, material, etc., thereafter by or on behalf of the City, in the operation and maintenance of the project for the purposes for which it is intended or adapted. The Contractor shall be responsible for any claims made against the City, its agents and employees or any actual or alleged infringement of patents by the use of any such patented articles, etc., in the construction and completion of the work, and shall save harmless and indemnify the City, its agents and employees from all costs, expenses, and damages, including Solicitor's and Attorney's fees which the City may be obligated to pay by reason of any actual or alleged infringement of patents used in the construction and completion of the work herein specified.
- C. The Contractor will defend, at its own expense, and will pay the cost and damages awarded in any action brought against the City based on any allegation that the items provided by the Contractor infringe on a patent and copyright license or trade secret. In the event that an injunction shall be obtained against the City's use of items by reason of infringement of any patent, copyright, license or trade secret, the Contractor will, at its expense, procure for the City the right to continue using the items, replace or modify the same so that it becomes non-infringing.
- 7.40 CARE AND PROTECTION OF WORK: From the commencement of the Contract until its completion, the Contractor shall be solely responsible for the care of the work and all injury or damage to the same, from whatever cause, shall be made good by the Contractor at the Contractor's own expense, before the final estimate is made. The Contractor shall provide suitable means of protection for all materials intended to be used in the work and for work in progress, as well as completed work.
- ABANDONMENT OF OR DELAY IN WORK: If the work under the Contract shall be abandoned by the Contractor, or if at any time the Project Manager shall be of the opinion and shall so certify, in writing, to the Contractor, that the performance of the Contract is unnecessarily or unreasonably delayed, or that the Contractor has violated any of the provisions of the Contract or is executing the same in bad faith or if the work is not fully completed within the time specified for its completion, together with such extension of time as may have been granted, the City by written notice, may order the Contractor to discontinue all work there under, or any part thereof, within the number of days specified on such notice. At the expiration of said time the Contractor shall discontinue the work, or such part thereof, and the City shall have the power, by Contract, or

otherwise, to complete said work and deduct the entire cost thereof from any monies due or to become due the Contractor under the Contract. For such completion of work the City may, for itself or its Contractor, take possession of and use or cause to be used any or all materials, tools, and equipment found on the site of said work. When any part of the Contract is being carried on by the City, as herein provided, the Contractor shall continue the remainder of the work in conformity with the terms of the Contract and in such manner as not to interfere with the City's workmen.

- <u>7.42</u> SUBLETTING OR ASSIGNING OF CONTRACT: The City and the Contractor each bind themselves, their partners, successors, assigns and legal representatives of such other parties in respect to all covenants, agreements, and obligations contained in the contract documents. Neither party to the contract shall sublet, sell, transfer, assign or otherwise dispose of the Contract or any portion thereof, or of the work provided for therein, or of its right, title or interest therein to any person, firm or corporation without the written consent of the other party, nor shall the Contractor assign any monies due or to become due hereunder without the previous written consent of the City.
- 7.43 NO WAIVER OF CONTRACT: Neither the acceptance by the City or its Project Manager nor any order, measurement, certificate or payment of money, of the whole or any part of the work, nor any extension of time nor possession taken by the City or its Project Manager shall operate as a waiver of any portion of the Contract, or any right to damage therein provided. The failure of the City to strictly enforce any provision of this contract shall not be a waiver of any subsequent breach of the same or different nature.
- **7.44 DUTIES, OBLIGATIONS, RIGHTS AND REMEDIES:** The duties and obligations imposed by the contract documents and the rights and remedies available there under shall be in addition to and not a limitation of the duties, obligations, rights and remedies otherwise imposed or available by law, unless so indicated.
- 7.45 IMPLIED WORK: All incidental work required by the drawings or specifications for which no payment is specifically provided and any work or materials not therein specified which are required to complete the work and which may fairly be implied as included in the Contract, and which the Project Manager shall judge to be so included, shall be done or furnished by the Contractor without extra compensation. The intent is to prescribe a complete work or improvement which the Contractor undertakes to do in full compliance with the contract documents together with any authorized alterations, special provisions and supplemental agreements.
- 7.46 MEASUREMENT OF WORK AND MATERIAL: The work and material to be paid for will be measured and determined by the Project Manager according to the specifications and drawings, and the working lines that may be given. No allowance will be made for any excess above the quantities required by the specifications, drawings and lines on any part of the work, except where such excess material has been supplied or work done by order of the Project Manager and in the absence of default or negligence on the part of the Contractor. Should the dimensions of any part of the work or of the materials be less than those required by the drawings or the directions of the Project Manager, only the actual quantities placed will be allowed in measurement.

- **7.47 EXTRA COSTS:** If the contractor claims that any instructions by the contract documents or otherwise involve extra compensation or extension of time, a written protest must be submitted to the Project Manager within 10 calendar days after receipt of such instructions and before proceeding to execute the work, stating in detail the basis for objection. No such claim will be considered unless so made.
- are provided in the Contract for use when and as directed by the Project Manager. These items shown on the Plans or in the specifications are established for the purpose of obtaining a bid price. The quantities for these contingent items may be increased or decreased without any adjustment to the Contract unit price bid or the contingent items may be deleted entirely from the Contract by the Project Manager without negotiation. The Contractor shall submit no claim against the City for any adjustment to the Contract unit price bid, should the contingent items be increased, decreased or eliminated entirely. Payment for any contingent items used will be made on the basis of the quantities as actually measured and as specified in the Specifications. Materials, Construction Requirements and Basis of Payment shall be as specified elsewhere in the Specifications, Plans or Special Provisions.

7.49 CHANGES IN THE SCOPE OR EXTRA WORK:

- A. The City, without invalidating the contract, may issue written changes in the work consisting of additions, deletions, or modifications with the contract sum and completion date being adjusted accordingly. All such changes or additional work must be authorized in writing by the Purchasing Manager prior to starting such work. Costs shall be limited to the cost of materials, labor, field supervision and field office personnel directly involved in and attributed to the change. All costs and/or credits to the City for a change in the work shall be determined by the unit price bid or by mutual agreement.
- B. The Contractor shall do all work that may be required to complete the work contemplated at the unit prices bid, or as otherwise mutually agreed upon.
- C. The Contractor shall perform extra work, for which there is no quantity or price included in the Contract, whenever it is deemed necessary or desirable, to complete fully the work as contemplated, and such work shall be done in accordance with the specifications therefore, or in the best workmanlike manner as directed. Where such a price or sum cannot be agreed upon by both parties, or where this method of payment is impracticable, the Project Manager may order the Contractor to do such work on a force account basis, which will be paid for as follows.

7.50 FORCE ACCOUNT WORK:

When the Contractor is required to perform work as a result of additions or changes to the contract for which there are no applicable unit prices in the contract, the City and Contractor shall make every

effort to come to an agreed upon price for the performance of such work. If an agreement cannot be reached, the City may require the Contractor to do such work on a force account basis to be compensated in accordance with the following:

- **A.** <u>Labor</u>. For all labor and for foremen in direct charge of the specific operations the Contractor shall receive the actual wages for each and every hour that said labor and foremen are actually engaged in such work.
- **B.** <u>Materials.</u> For materials accepted by the Project Manager and incorporated into the project, the Contractor shall receive the actual cost of such materials, including transportation charges paid by him (exclusive of machinery rentals as hereinafter set forth). Excess materials delivered to the job site and not incorporated into the project will not be paid for and it is the Contractor's responsibility to remove said excess material from the job site.
- C. Equipment. For any machinery or special equipment (other than small equipment tools, whether rented or owned), the use of which has been authorized in writing, by the Project Manager the Contractor shall receive the rates agreed upon in writing before such work is begun which price shall include fuel, oil and miscellaneous necessities, or the Contractor shall receive those rates which may be specified elsewhere in the Special Provisions. For the purpose of definition, equipment with a new cost of \$1000.00 or less will be considered small tools and equipment.
- **D.** Materials and Supplies Not Incorporated in the Work. For materials and supplies expended in the performance of the work (excluding those required for rented equipment) and approved by the Project Manager, the Contractor shall receive the actual cost of such materials and supplies used.
- **E.** <u>Subcontractors</u>. The Contractor shall receive the actual cost of work performed by a subcontractor. Subcontractor's cost shall be determined as in A., B., C., and D. above, plus the fixed fee for overhead and profit allowance computed as in G.
- **F.** <u>Superintendence.</u> No additional allowance shall be made for general superintendence, the use of small tools, or other costs for which no specific allowance is herein provided
- **G.** Contractor's Fixed Fee. The Purchasing Manager and the Contractor shall negotiate a fixed fee for force account work performed pursuant to this specification by its force and by its subcontractors. The City shall pay 10 percent of A as compensation for overhead and profit for the work performed. The Contractor shall proceed diligently with the performance of the force account work to completion. The Contractor's fixed fee shall include an amount equal to the sum of 65 percent of A, which shall include, but not be limited to the following:
 - (1) Compensation for all costs paid to, or in behalf of, workmen by reason of subsistence and travel allowances, health and welfare benefits, pension fund benefits or other benefits

that may be required by collective bargaining agreement or other employment contract generally applicable to the classes of labor employed in the work; and

(2) Bond premiums, property damage, liability and workmen's compensation insurance premiums, unemployment insurance contributions and Social Security taxes on the force account work.

In addition, the Contractor's fixed fee may include an amount not to exceed $\underline{10}$ percent of \underline{B} . unless specifically authorized by the Project Manager in advance of the work; $\underline{5}$ percent of \underline{D} ., and $\underline{5}$ percent of \underline{E} with the exception of that portion chargeable to equipment as defined above.

- H. Compensation. The compensation as set forth above shall be received by the Contractor as payment in full for change order work done on a force account basis. At the end of each day, the Contractor's representatives and the Project Manager, shall compare records of the cost of work as ordered on a force account basis. Differences shall be immediately resolved and any unresolved difference shall be brought to the attention of the Project Manager by written notice from the Contractor within two working days of the occurrence.
- I. <u>Statements.</u> No payment will be made for work performed on a force account basis until the Contractor furnishes the Project Manager duplicate itemized statements of the cost of such force account work detailed as to the following:
 - (1) Name, classification, date, daily hours, total hours, rate, and extension for such workmen. Contractor shall provide certified payrolls
 - (2) Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment. Contractor shall provide original receipted invoices.
 - (3) Quantities of materials, prices and extensions. Contractor shall provide original receipted invoices.
 - (4) Transportation of materials. Contractor shall provide original receipted invoices.

If, however, the materials used in the force account work are not specifically purchased for such work but are taken from the Contractor's stock, then in lieu of the original invoices the statements shall contain or be accompanied by an affidavit of the Contractor which shall certify that such materials were taken from its stock that the quantity claimed was actually used and that the price and transportation of the material as claimed represent actual cost. Any request for payment under this Section should be submitted in the order outlined by the above.

The Contractor shall be responsible for all damages resulting from work done on a force-account basis, the same as if this work had been included in the original Contract.

Work performed without previous written order by the Project Manager will not be paid.

7.51 ALLOWANCES: Whenever an allowance is mentioned in the specifications, then the contractor shall include in its contract sum the entire amount of such specified allowances. The expenditure of these allowances shall be at the Purchasing Manager's direction. However, the allowance expenditure is limited to items properly inferable from the title and description of the allowance. Unexpended balances shall be credited to the City. Compensation payable to the contractor for expenditure of allowances directed by the Purchasing Manager shall be based on the cost to the contractor as shown by actual invoices or receipts, and no additional overhead or profit shall be payable to the contractor for such allowances.

7.52 PROGRESS PAYMENTS AND RETAINAGE

- A. The Contractor shall submit a detailed application for payment on a monthly basis, preferable on an AIA G702 form. Such application for payment, notarized, if required, must be accompanied by supporting data and documents substantiating the Contractor's right to payment and reflecting a five percent retainage.
- B. Applications for payment shall not include payment for equipment or materials delivered to the site but not installed or for materials or equipment properly stored off-site unless specifically approved by the Project Manager. If such approval is granted, the Contractor must submit with the application for payment, bills of sale or other such documentation satisfactory to the City to establish the City's title to such materials or equipment or otherwise to protect the City's interest, including applicable insurance and transportation to the site for materials and equipment stored off site. Such approvals are typically reserved for "big ticket" items that individually would exceed five percent (5%) of the bid total. The Contractor shall promptly pay each subcontractor and supplier for work completed upon receipt of payment from the City the amount to which said subcontractor is entitled, reflecting any percentage retained from payments to the Contractor on account of each subcontractors work. The Contractor shall, by an appropriate agreement with each subcontractor, require each subcontractor to make prompt payments to its subcontractors in a similar manner.
- C. The City shall be under no obligation to pay or to see to the payment of any moneys to any subcontractor except as may otherwise be required by law.
- D. No Certificate of Payment or partial or entire use of the facility by the City shall constitute an acceptance of any work which is not in accordance with the Contract Documents.
- E. <u>Payments Withheld</u> The City may decline to certify payment or because of subsequently discovered evidence or observations, nullify the whole or any part of any Certification of Payment previously issued, as may be necessary to protect the City from loss because of: (1) defective work not remedied, (2) third party claim filed or evidence indicating probable filing of such claim, (3) failure of the Contractor to make payments properly to subcontractors or

suppliers, (4) reasonable evidence that the work cannot be completed for the unpaid balance of the contract sum, (5) reasonable evidence that the work will not be completed within the Contract time, (6) persistent failure to carry out the work.

7.53 FINAL PAYMENT REQUEST:

- A. Upon reaching substantial completion, as defined by receipt of occupancy permit or when all related punch list items have been completed, whichever date is later, the Contractor may submit a written Application for Final Payment. All supporting documentation and data shall be submitted with the Request for Final Payment as is applicable to the monthly Requests for Payment referenced heretofore.
- B. Out of the amount representing the total of the final payment request the City shall deduct five (5%) percent, which shall be in addition to any and all other amounts which, under the Contract, it is entitled or required to retain and shall hold said sum for a period of 120 days after the date of acceptance of the work by the City.
- C. Within thirty (30) days after the approval of the final payment request, the City will pay to the Contractor the amount remaining after deducting from the total amount of the final estimate all such sums as have hereto before been paid to the Contractor under the provision of the Contract and also such amounts as the City has or may be authorized under the Contract to reserve or retain.
- D. Neither the final payment nor the remaining retainage shall become due until the Contractor submits to the Project Manager:
 - An affidavit that all payrolls, bills for materials and equipment and other indebtedness connected with the work for which the City or its property might in any way be responsible, have been paid.
 - 2. Consent of surety to final payment, and
 - 3. If requested, data establishing payment or satisfaction of obligations, such as receipt, release and waivers of liens arising out of the Contract;
 - 4. All punch list items are completed to the satisfaction of the Project Manager.
- E. If any subcontractor refuses to furnish a release or waiver of liens required by the City, the Contractor may furnish a bond satisfactory to the City to indemnify him against any such lien. If any such lien remains unsatisfied after all payments are made, the Contractor shall refund to the City all moneys that the latter may be compelled to pay in discharging such lien, including all costs and reasonable attorney fees.
- F. Acceptance by the Contractor of final payment shall operate as a release to the Mayor and Council and every officer and agent thereof, from all claims and liabilities to the Contractor for anything done or furnished or relating to the work under the contract.

- **7.54 RELEASE OF RETAINAGE:** Upon the expiration of the aforesaid period of 120 days succeeding the date of acceptance, the City will pay to the Contractor all sums reserved or retained, less such amount as it may be empowered under the provisions of the Contract to retain.
- <u>7.55</u> <u>GUARANTEES / WARRANTIES:</u> All guarantees and warranties required shall be furnished by the Contractor and shall be delivered to the Project Manager before final payment is made. The Contractor guarantees that the items conform to the contract documents.

7.56 GUARANTEE PERIOD

- A. The Contractor shall warrant and guarantee the work required under this Contract for a period of 12 months from the date of Final Acceptance. The Contractor warrants and guarantees to the City, that materials and equipment furnished under the Contract shall be of good quality and new unless otherwise required or permitted by the Contract Documents, that all work will be in accordance with the Contract Documents, and that all work will be of good quality, free from faults and defects. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. If required by the City, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.
- B. The Contractor's obligation to perform and complete the work in a workmanlike manner, free from faults and defects and in accordance with the Contract Documents shall be absolute. The Contractor shall remedy, at its own expense, and without additional cost to the Owner, all defects arising from either workmanship or materials, as determined by the City, or City's representative. The obligations of the Contractor under this Paragraph shall not include normal wear and tear under normal usage.
- C. If the Contractor does not, within 10 calendar days after notification from the Project Manager, signify its intention in writing or in action to correct work, as described above, then the Project Manager may proceed with the work and charge the cost thereof to the account of the Contract as herein before provided.

D. Substantial Completion:

Sufficient completion of the project or the portion thereof to permit utilization of the project, or portion thereof for its intended purpose. Substantial completion requires not only that the work be sufficiently completed to permit utilization, but that the City can effectively utilize the substantially completed work. Determination of substantial completion is solely at the discretion of the City. Substantial completion does not mean complete in accordance with the contract nor shall substantial completion of all or any part of the project entitle the Contractor to acceptance under the contract.

- E. At such time as the Contractor has completed the work and prior to requesting a final inspection, the Contractor shall make written request for an inspection for substantial completion. Such request shall be made no less than seven calendar days prior to the requested date of inspection. An inspection will be made by the City and a determination will be made as to whether or not the work is in fact substantially complete and a "punch list" will be developed. "Punch Lists" containing numerous items or items which may affect the intended use of the work will be considered cause to delay issuance of a document of Substantial Completion. Operation and Maintenance manuals shall be submitted and approved prior to issuance of any document of Substantial Completion.
- 7.57 TRANSFER OF TITLE: The Contractor warrants that title to all work, materials and equipment covered by the Application for Payment will pass to the City either by incorporation in construction or upon the receipt of payment by the Contractor, free and clear of all liens, claims, interests or encumbrances, and that no work, materials, or equipment covered by an Application for Payment will have been acquired by the Contractor, or by any person performing the work at the site or furnishing materials or equipment for the project, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other persons.
- **7.58 USE OF PREMISES:** Whenever, in the opinion of the Project Manager, any portion of the work is completed or is in an acceptable condition for use, it shall be used for the purpose it was intended, however, such use shall not be held as acceptance of that portion of the work, or as a waiver of any of the provisions of the Contract.
- **7.59 DETERMINATION OF CITY'S LIABILITY:** The acceptance by the Contractor of the final payment made as aforesaid shall operate as and be a release to the City and every officer and agent thereof, from all claims by and liabilities to the Contractor for anything done or furnished for or relating to or affecting the work under the contract.
- **7.60 NO LIMITATION OF LIABILITY:** The mention of any specific duty or liability of the Contractor in any part of the specification shall not be construed as a limitation or restriction upon any general liability or duty imposed upon the Contractor.
- **7.61 PRESERVATION OF MONUMENTS AND TREES:** The Contractor shall be responsible for the preservation of all public and private property, trees, monuments, highway signs, markers, fences, and curbs or other appurtenances, and shall use every precaution to prevent damage or injury thereto. Any expense necessary to provide adequate protection, whether such designated item be on or off the right-of-way, shall be assumed by the Contractor.
- **<u>7.62</u> PUBLIC ACCESS:** The Contractor shall at all times conduct the work in such a manner as to insure the least obstruction to traffic practicable. The convenience and safety of the general public and the residents along the improvement shall be provided for in an adequate and satisfactory

manner. Fire hydrants shall be kept accessible to fire apparatus at all times. Handicap access shall remain accessible.

<u>Federal</u> "Hazard Communication" provision (29 CFR 1910.1200), and the Maryland "Access to Information About Hazardous and Toxic Substances" law to label each hazardous material or chemical container, and to provide Material Safety Data Sheets to the purchaser. The Contractor must comply with these laws and must provide the City with copies of all relevant documents, including Material Safety Data Sheets, prior to performance of services or contemporaneous with the delivery of goods.

7.64 MAINTENANCE OF VEHICULAR TRAFFIC:

- A. Unless otherwise directed by the Project Manager, traffic must be maintained on all roadways within the construction area continuously or with the least amount of interruption during the construction period necessary to minimize accidents and accident severity and maintain safety while at the same time minimizing inconvenience to the traveling public and the Contractor. The Project Manager shall have the exclusive right to order a road to be closed or to remain open. No equipment will be stored or permitted to stand within the limits of the roadway right-of-way where traffic must be maintained. Any earth dropped on the surface of the existing road shall be removed immediately to avoid possible hazardous conditions. The Contractor shall prepare and submit a Traffic Control Plan (TCP) for the Project Manager's review, revision, and approval, at least ten days before beginning work, unless otherwise directed.
- B. All Traffic Control Devices shall be in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), latest edition (and all revisions). With the approved TCP implemented, the Contractor will be permitted to work with the following provisions: All traffic lanes must be restored at the end of each day unless specifically authorized otherwise, in advance, by the Project Manager:
- C. The City reserves the right to modify or expand on the methods of traffic control specified and to restrict working hours if, in the opinion of the Project Manager, the Contractor's operations are a detriment to traffic during rush hour periods.
- D. Signs on fixed supports shall be mounted on two posts. Signs mounted on portable supports are suitable for temporary conditions. During periods of partial shutdown, or extended periods when no work is being performed, the Contractor shall remove or adequately cover all construction signs as directed by the Project Manager.
- E. The Contractor shall be responsible for removing, storing, covering, and resetting all existing traffic signs and delineators that become inapplicable and will confuse traffic during the various stages of construction, the cost of which shall be included in the price for Maintenance of Traffic or in the absence of such a pay item it shall be accomplished at no additional compensation, as

incidental to the contract. Any signs lost or damaged will be replaced by the Contractor at its expense.

- F. The Contractor shall provide, maintain in new condition, and move when necessary or directed all traffic control devices used for the guidance and protection of vehicles.
- G. The Contractor shall be responsible for providing the appropriate signs to reflect varying traffic patterns prior to the commencement of a new stage of construction.
- H. Traffic must be safely maintained at all times throughout the entire length of the project. No additional compensation shall be paid to the contractor for traffic maintenance, even if the contract time exceeds the contractually specified completion date or working days.
- I. When required lane shifts are implemented, existing painted lane markings no longer applicable shall be removed to the satisfaction of the Project Manager.
- J. Temporary crash cushions shall be installed as shown on the Plans. Unless otherwise specified, sand containers shall be used. The crash cushions shall conform to Subsection 104.10 of the MDSHA Specifications.
- K. Crash cushions shall be reset to reflect changing traffic patterns caused by different stages of Traffic Control. The crash cushions shall be reset at locations shown on the Plans or as directed by the Project Manager.
- L. Should any of the sand container components be damaged during the resetting of the system or during the course of the project, the Contractor shall replace the damaged components at its own expense.
- M. The Contractor shall have flaggers on this Project for the purpose of controlling traffic while maneuvering heavy equipment. This may require a temporary lane closure in any of the specified Traffic Control Phases. These temporary lane shutdowns shall be kept to a minimum and the normal traffic pattern for the Traffic Phase shall be restored as quickly as possible. The Contractor shall comply with Section B-20 of the MUTCD regarding flagger signing.
- N. Prior to stopping work each day the Contractor will be required to reshape all graded areas and eliminate all drop-offs not protected by barriers by filling with compacted stone at maximum of 8:1 slope.
- O. All barriers and barricades shall be adequately illuminated at night, as specified herein, and all lights for this purpose shall be kept operative from sunset to sunrise.
- P. No work shall be commenced in any stage of construction until the barriers and barricades for that stage, indicated on the Plans, or as specified by the Project Manager, are completely in place.

The Contractor will be solely responsible for all accidents and damages to any persons and property resulting from its operations. Compliance with prescribed precautions contained herein or in the MDSHA Specifications or Manual On Uniform Traffic and Control shall not relieve the Contractor of its primary responsibility to take all necessary measures to protect and safeguard the work, nor relieve the Contractor from any responsibilities prescribed by GP-7 of the January 2001 MDSHA Standard Specifications for Construction and Materials.

- Q. The Contractor shall notify and obtain approval in writing from the Project Manager, at least 48 hours before changing any Traffic Control Phase.
- R. Any construction materials or debris dropped on the roadway surface shall be removed immediately to avoid possible hazardous conditions.
- S. Materials The Contractor shall provide, maintain in first class condition, replace and move when necessary or directed all materials, devices, flagging, etc., required to maintain traffic in accordance with the Traffic Control Plans or as directed by the Project Manager. Reference is made to the latest edition of the MUTCD, wherein all such items are fully described with regard to use, application, warranties, size, color, placement, etc., and wherein typical traffic control device layouts are shown, as all such devices and techniques planned for use on this project shall strictly conform to the Manual's request except as noted on the Plans.
- T. When any of the following items have been established on the Plans or as directed by the Project Manager, the Specifications will be adhered to in accordance with the respective sections.
- U. Lights, Warnings, Etc: All banners and imitation barrels shall be adequately illuminated at night, and all lights for this purpose shall be kept operative from sunset to sunrise.
- V. Steady burning warning lights shall be used to delineate channelization through and around obstructions in a construction or maintenance area, on detour curves, on lane closures, and in other similar conditions (MUTCD 6E-4, 6E-5). Flashing warning lights shall be the means for identifying a particular and individual hazard and shall not be used in sequence, in clusters, or for delineation (MUTCD: 6E-5, 6E-6).
- W. Where noted on the plans the first two (2) warning signs shall include a "High Level Warning Device." In addition to the flags the signs shall also be equipped with a Type "B" High Intensity Flag Warning Light. This device must meet the requirements of MUTCD 6C-11 and 6E-5. The device shall be incidental to the Temporary Traffic Sign item if provided for, otherwise the costs shall be considered incidental and no special compensation will be paid.
- X. Barriers: Temporary concrete barriers shall be installed on the roadway approaches as shown on the plans or as approved in writing.

- Y. Any permanent facilities damaged as a result of anchoring temporary concrete barriers (anchor holes. etc.) shall be repaired to the satisfaction of the Project Manager using an epoxy grout or other material as may be specified by the Project Manager. Epoxy grout shall consist of sand and epoxy, mixed by volume according to manufacturer's recommendations.
- Z. Method of Measurement and Basis of Payment: All work and materials required under the TCP not covered or specified as a pay item on the price proposal form will be included in the lump sum price bid for Maintenance of Traffic. In the absence of such an item the Contractor agrees that there will be no special compensation paid for maintenance of vehicular traffic as described above and the cost shall be considered incidental to the contract and compensated as part of other contract bid item(s).
- <u>7.65</u> <u>PARKING, STORAGE AND STAGING AREAS:</u> Parking, storage and staging areas for the Contractor's use during the Project must have prior written approval of the Project Manager. All areas used for storage of equipment or material shall be restored to their original condition, immediately upon completion of the work. No additional compensation will be provided for restoring, re-grading, placement of topsoil, and seed and mulch in these areas.
- 7.66 PEDESTRIAN TRAFFIC: Pedestrians shall be safeguarded by the use of signs lights, barricades and barriers as shown on the traffic control plan and/or directed by the Project Manager. Pedestrian traffic shall be maintained at all times unless specifically authorized otherwise, in advance, by the Project Manager. The Contractor shall submit a pedestrian traffic safety plan in accordance with the MUTCD, incorporating safety measures and other provisions to fully implement the intent of this paragraph. All work and materials required to prepare and implement the pedestrian traffic safety plan shall be considered incidental to the contract and there shall be no special compensation paid for this item unless special pay items are included in the Price Proposal page. No additional compensation shall be paid for maintenance of vehicular and pedestrian traffic if for whatever reason the project time extends beyond the contract specified completion date or working days.
- **7.67 HANDICAP ACCESS:** Where handicap access exists within the line of work under this contract it will be the contractor's responsibility to maintain said access during the life of this contract. This service is considered to be incidental to this contract and no special compensation will be paid for this service unless provided on the Price Proposal page.
- **<u>7.68</u>** TOILET FACILITIES: The Contractor shall provide toilet facilities meeting Maryland Occupational Safety and Health Act (MOSHA) standards at the job site. The City will not pay for this element.

7.69 STAKEOUT-CONSTRUCTION CONTROL:

Survey construction control provided by the City shall be limited to the baseline with stations not over 100 feet, and the elevation of the top of each marked point. P.C.s, P.T.s. P.I.s, P.V.T.s, and at

least one point on the tangent beyond the end of each curve will be staked. The Contractor shall request baseline stakeout a minimum of five days in advance of construction. Stakeout data other than stated above will be furnished by the construction Contractor per MDSHA Section 815 for structures, otherwise per WSSC specification Section 01000(H) and as described in detail below and in these specifications. The City's responsibility for stakeout for the entire project shall be limited to that data described above and this shall be provided only once. The Contractor shall preserve or otherwise ensure adequate survey controls exist throughout the life of the contract.

- A. Surveys and stakeout shall be accomplished by the Contractor as outlined above and in conformance with WSSC specifications Section 01000-10-1 l(H), entitled "Construction Stakeout By Contractor."
- B. The provisions therein are primarily for pipeline stakeout. The Contractor's responsibilities under this contract are hereby expanded to include, in addition to pipeline stakeout, similar responsibilities for all phases of stakeout necessary to construct all facilities under this contract including but not limited to clearing and grubbing excavation, pavement, curbs and gutters, storm drainage pipes and facilities, culverts, structures, storm water management facilities, street lights, traffic signal conduits and components, noise walls, retaining walls, ditches and sediment control features.
- C. The stakeout and survey record data shall be preserved and turned over to the City for filing following completion of specific components of work.
- D. <u>Method of Measurement and Payment</u> Generally, stakeout shall be considered incidental to the contract and no special compensation shall be paid, unless a specific pay item is included in the contract Price Proposal page of this contract. Where payment is provided, progress payments for stakeout shall be made based on the percentage resulting from the price bid for stakeout divided by the total bid, multiplied by the monthly payment exclusive of the stakeout payment, except the final payment shall be adjusted as necessary to equal the total price bid for stakeout.
- E. Grade Sheet by Contractor: Grade sheets showing hub and design elevations for roadway, water mains, drainage structures and piping, walks, lights, infiltration facilities clearing/grubbing, excavation, and related components will be provided by the construction Contractor at least 8 hours in advance of construction and will be subject to approval by the Project Manager. Stakeout for curb and gutter in all vertical and horizontal curves shall be at intervals of 25 feet or less unless otherwise specifically authorized by the Project Manager. This work is considered incidental to the contrast and no extra compensation will be paid.
- 7.70 BURNING DEBRIS IS PROHIBITED: Under no circumstance will any open fires be permitted within the City of Rockville. The Contractor shall remove and haul from site all debris (except when otherwise specifically authorized in the bid document) and dispose of the debris in accordance with Local, State and Federal laws in effect at the disposal site. No special compensation will be paid as all costs for off-site disposal shall be included in the applicable bid prices and considered incidental to the contract.

7.71 CLEAN UP:

- A. In addition to any provisions regarding clean up in the bid document, clean up, including the restoration of areas of construction, the Contractor shall proceed as quickly as is practicable. The period between construction and final clean up shall normally not exceed one week. If at any time during the course of the work the cleaning operation in any given area becomes delinquent in the opinion of the Project Manager, the Project Manager may order that construction be stopped until such cleaning is completed. Any such order shall not extend the Final Completion date under this contract. Unless otherwise indicated, all materials razed, demolished, or otherwise removed from the work site shall become the property of the Contractor and shall be disposed of legally and properly off site at its expense.
- B. Upon Final Completion of the work and before acceptance and final payment shall be made, the Contractor shall clean and remove from the street, footways, lawns, and adjacent property, all surplus and discarded materials, rubbish and temporary structures, restore in an acceptable manner all property, both public and private, which has been damaged during the prosecution of the work and shall leave the work area in a neat and presentable condition throughout the entire length of the project under contract.
- C. If the Contractor fails to clean up at Final Completion of the work, the City may do so and the cost thereof shall be charged to the Contractor.

END OF SECTION VII

SECTION VIII - BID SUBMITTAL INSTRUCTIONS

8.1 Required Submittals:

- A. To be considered for award, the following submittals must be included with your bid proposal at the time it is accepted by the Purchasing Division.
- B. Your bid proposal package should include an original and copies as specified of the following, except the Bid Bond and Affidavits.
- C. The City will reject as non-responsive any bid proposal that does not include ALL of the following:

8.2 <u>Bid Proposal Form (Original + 1 Copy):</u>

- A. Complete the Bid Proposal Form. You must include a unit price for each priced item. Extend the unit price by the quantity and write the number in the appropriate space. Complete all other spaces.
- B. Submit the Manufacturer's Name, Brand and Model Number for the specified items that you proposed to use on this project on the Bid Proposal Form.

8.4 <u>5% Bid Bond (Original Only):</u>

Attach a Bid Bond in the amount of 5% of the Total Bid Amount. The original Bid Bond shall be attached with the original Bid Proposal Form. See Section 2.7 Bid Bond

8.5 Affidavits (Originals Only):

Complete, sign, and return one original of the following Affidavits with your Bid Proposal Form. The originals shall be attached with the original Bid Proposal Form.

AFFIDAVIT OF QUALIFICATION TO CONTRACT WITH A PUBLIC BODY

NON—COLLUSION AFFIDAVIT

8.6 Bidder Questionnaire (Original + 1 Copy):

Complete ALL sections of the Bidder Questionnaire and include the original and one exact copy with the Bid Proposal Form

8.7 Subcontracting Plan (Original + 1 Copy):

If you will subcontract ANY work, except the purchase of materials and equipment, submit the original and one exact copy with your Bid Proposal Form of the following MINIMUM information:

- 1) A description of the services / work to be subcontracted with estimated cost and percentage of total bid price; and
- 2) The subcontractor's organization name, project manager's name, address, office telephone number, cell telephone number, and email address; and
- 3) Confirmation of the sub-contractor's ability to meet the project schedule; and

8.9 Exceptions (Original + 1 Copy):

- A. List and describe in detail any exception that you, as the Bidder, take concerning any requirement or item set forth in this IFB, specifications, or plans.
- **B.** Unless noted as an exception, the Bidder will be held responsible for providing each component or standard called for.

8.10 References:

- A. Using the format provided on the BIDDER REFERENCE FORM, submit at least five current references that can confirm your capacities and abilities to successfully complete this project with the required time. (Original + 1 Copy)
- B. Using the format provided on the SUBCONTRACTOR REFERENCE FORM, (Original + 1 Copy) for **EACH** proposed subcontractor, submit at least three current references that can confirm the subcontractor's capacities and abilities to successfully complete its portion of the project with the required time.

END OF SECTION VIII

BID PROPOSAL FORMS FOLLOW

REVISEDBID PROPOSAL FORM

			, 2014
TO:	Mayor and Council		
	City of Rockville		
	111 Maryland Avenue		
	Rockville, MD, 20850		
The un	dersigned hereby declare that [type your firm na	ame]	_have
careful	ly examined the specifications to furnish:		
	Accessible Pedestria	nn Signals Project	
for wh	ich bids were advertised to be received on Wed	nesday January 22, 2013 and further	declare that
[type y	our firm name]	_ makes this binding offer to furnish a	ll labor,
equipn	nent, materials and services and the performance	e of all work necessary to complete the	e Accessible

Pedestrian Signals Project.

Item No.	Description	Unit	Est Qty	Unit Price	Total
1001	Mobilization	Lump Sum			
1002	Maintenance of Traffic	Lump Sum			
2001	Test Pit Excavation	Per Cubic Yard	33		
5001	Removal of Existing Pavement Markings	Per Linear Foot	150		
5002	12 inch White Heat Applied Thermoplastic Markings	Per Linear Foot	260		
6001	Type D, Combination Curb and Gutter, 12 inch Gutter Pan, 6 inch Depth	Per Linear Foot	650		
6002	5 inch Concrete Sidewalk	Per Square Foot	6650		

Item No.	Description	Unit	Est Qty	Unit Price	Total	
6004	Detectable Warning Surface for Curb Ramp	Per Square Foot	450			
Manufacturer Name: Brand: Model #:						
8001	APS Central Control Unit	Each	7			
Manu	facturer Name: Bran	nd:		Model #:		
8002	Remove and Dispose of Existing Equipment	Each	7			
8003	Concrete for Signal Foundation	Per Cubic Yard	11.6			
8004	No. 6 Stranded Bare Copper Ground Wire	Per Linear Foot	510			
8005	Ground Rod ¾ inch Diameter, 10 foot Length	Each	1			
8006	3 inch Schedule 80 Rigid PVC Conduit - Trenched	Per Linear Foot	465			
8007	2 Conductor Electrical Cable No. 14 AWG	Per Linear Foot	6450			
8008	5 Conductor Electrical Cable No. 14 AWG	Per Linear Foot	6600			
8009	Electrical Handhole	Each	1			
8011	16 inch LED Countdown Pedestrian Signal Head w/ Hardware	Each	12			
Manu	facturer Name: Bran	nd:		Model #:		

Item No.	Description	Unit	Est Qty	Unit Price	Total	
8012	APS and R10-3(1) Sign (9" X 15") w/ Hardware	Each	44			
Manut	facturer Name: Bran	ıd:		Model #:		
8013	5 foot Steel Pedestrian Pedestal Pole	Each	26			
Manut	facturer Name: Bran	ıd:		Model #:		
8014	10 foot Steel Pedestrian Pedestal Pole	Each	8			
Manut	facturer Name: Bran	ıd:		Model #:		
8015	Concrete Collar for Handbox	Each	24			
8016	Relocate Sign	Per Square	71			
8010	Relocate Sign	Foot	/1			
8018	Countdown Pedestrian Signal Head Insert	Each	32			
Manufacturer Name: Brand:				Model #:		
8019	2 Conductor Electrical Cable No. 12 AWG	Per Linear	185			
6019	Tray Cable	Foot	103			
8021	Patch Holes on Signal Pole	Each	25			
8023	12 inch LED Vehicular Traffic Signal Head (Black Face)	Each	12			
Manufacturer Name: Brand:				Model #:		
8024	Remove and Relocate Existing Pedestal Pole	Each	2			
		l	l			

Item No.	Description	Unit	Est Qty	Unit Price	Total
8025	Overhead Sign	Per Square Foot	50.5		
8026	Standard Type "A" Curb	Per Linear Foot	140		
8027	Remove Existing Sidewalk	Per Cubic Yard	4		
8028	Reset Brick Pavers	Per Square Foot	160		

Write the Total Bid Price for Accessible Pedestrian Signals Project in words:
All elements of this project shall be completed within 180 calendar days from the Notice To Proceed date.
Confirm your ability to meet the above schedule YES NO
Firm Fixed Price valid fordays [minimum 90 days]
By submitting this offer I acknowledge receipt of and incorporation into this offer of the following Addendum (check box and attach a copy of Addendum #8): Addendum #8 \(\square\$
The City of Rockville reserves the right to reject any or all bids, offer or proposals, to waive informalities, and to accept all or any part of any bid, offer proposal as they may deem to be in the best interest of the City of Rockville.
I hereby certify that I have read and understand the requirements of this Invitation for Bid No. 06-14 and, that I, as the Bidder, will comply with all requirements, and that I am duly authorized to execute this proposal/offer document and any contract(s) and/or other transactions required by award of this Invitation For Bid.
Company

Invitation For Bid #06-14 REVISION 1, December 26, 2013 Accessible Pedestrian Signals Project

Per (print name)				
Title				
Signature				
Address				
City				
Telephone	Fax		Cell	
E-Mail Address:				
DUNS	Employers' Identification Number			

Instruction for Signature on Bid Proposal

The bid, if submitted by an individual, shall be signed by an individual; if submitted by a partnership, shall be signed by such member or members of the partnership as have authority to bind the partnership; if submitted by a corporation the same shall be signed by the President and attested by the Secretary or an Assistant Secretary. If not signed by the President as aforesaid, there must be attached a copy of that portion of the By-Laws, or a copy of a Board resolution, duly certified by the Secretary, showing the authority of the person so signing on behalf of the corporation. In lieu thereof, the corporation may file such evidence with the Administration, duly certified by the Secretary, together with a list of the names of those officers having authority to execute documents on behalf of the corporation, duly certified by the Secretary, which listing shall remain in full force and effect until such time as the Administration is advised in writing to the contrary. In any case where a bid is signed by an Attorney in Fact the same must be accompanied by a copy of the appointing document, duly certified.

IF AN INDIVIDUAL:

NAME:				
	Stı	reet and/or P.O. Box		
	City	State	Zip Code	Fed ID or SSN
			(SEAL)	
	Signature			Date
	Print Signature	,		
WITNESS:_				
		Signature		
-		Print Signature		

IF A PARTNERSHIP:

NAME OF	F PARTNERSHIP:			
	Street and/or l	P.O. Box		
	City	State	Zip Code	Fed ID or SSN
BY:			(SEAL)	
	Member Signature			Date
	Print Signature			
TITLE:		WITNESS:		
			Signature	
			Print Signat	ture

IF A CORPORATION:

NAME OF CORPORAT	ΓΙΟΝ:		
S	treet and/or P.O. Box		
City	State	Zip Code	Fed ID
STATE OF INCORPOR	AATION:		
		(SEAL)	
Signature			Date
Print Sign	ature		
TITLE:	WITNESS:_		
		Secretary's	Signature
		Print Signat	ure
ONTACT FOR ADMIN	<u>ISTRATION</u>		
ME:			
ONE:	FAX:		
MAIL ADDRESS:			_
MERGENCY SERVICE (24hr.) PHONE:		
	S (if different than above)		
S	treet and/or P.O. Box		
ty		State Zip	Code

	O CONTRACT WITH A PUBLIC BODY (insert title) and the duly authorized
representative of	(insert organization name) whose address is
And, that I possess the legal authority to make am acting. I affirm:	e this affidavit on behalf of myself and the firm for which I
1. Except as described in Paragraph 2 below, knowledge, any of its controlling stockholder	neither I nor the above firm nor, to the best of my s, officers, directors, or partners, performing contracts with , or any local governmental entity in the state, including any
A. been convicted under the laws of the S of the following: (1) bribery, attempted bribery, or conspi	tate of Maryland, any other state, or the United States of any
	ing, attempting to obtain, or performing a public or private
property.	falsification or destruction of records, or receiving stolen
acts in connection with the submission	tatute. ed and Corrupt Organization act, or the Mail Fraud Act, for on of bids or proposals for a public or private contract. State Finance and Procurement Article of the Annotated
(7) conspiracy to commit any of the fore	egoing.
B. pled <i>nolo contendere</i> to, or received prin subsection A of this paragraph.	obation before verdict for, a charge of any offense set forth
•	trust statute of the State of Maryland, another state, or the ion with the submission of bids or proposals for a public or
	gation or other proceeding, admitted, in writing or under grounds for conviction or liability under any law or statute ph.
	y conviction, plea or admission as described in Paragraph 1 strative body, the individuals involved and their position if any]
	ove firm shall knowingly enter into a contract with the a person or business debarred or suspended from

Annotated Code of Maryland, will provide, directly or indirectly, supplies, services, architectural services,

contracting with a public body under Title 16 of the State Finance and Procurement Article of the

construction related services, leases of real property, or construction.

I acknowledge that this Affidavit shall be furnished to the Mayor and Council of Rockville and, where appropriate, to the State Board of Public Works and to the Attorney General. I acknowledge that I am executing this Affidavit in compliance with the provisions of Title 16 of the State Finance and Procurement Article of the Annotated Code of Maryland which provides that persons who have engaged in certain prohibited activity may be disqualified, either by operation in law or after a hearing, from entering into contracts with the Mayor and Council of Rockville. I further acknowledge that if the representations set forth in this Affidavit are not true and correct, the Mayor and Council of Rockville may terminate any contract awarded, and take any other appropriate action.

Signature	
Printed Name	
Title	
Date	

NON—COLLUSION AFFIDAVIT

I hereby affirm that: I am the	(insert title) and the duly authorized
representative of	(insert organization name) whose address is
And, that I possess the legal authority to make the am acting. I affirm:	is affidavit on behalf of myself and the firm for which I
1. I am fully informed respecting the preparate circumstances respecting such bid;	tion and contents of the attached bid and of all pertinent
2. Such bid is genuine and is not a collusive of	or sham bid
or parties in interest, including this affiant, has in directly or indirectly with any other bidder, firm of with the Contract for which the attached bid has be with Contract, or has in any manner, directly or in communication or conference with any other bidder attached bid or of any other bidder, or to fix any of bid price of any other bidder, or to secure through	der, firm or person to fix the price or prices in the overhead, profit or cost element of the bid price or the n any collusion, conspiracy, connivance or unlawful Council of Rockville, Maryland (Local Public Agency)
collusion, conspiracy, connivance or unlawful ag	oid are fair and proper and are not tainted by any reement on the part of the bidder or any of its agents, interest, including this affiant. I do solemnly declare and tents of these affidavits are true and correct.
Signature	
Printed Name	
Title	

Date

BIDDER'S QUESTIONNAIRE

In order to be considered for award the Bidder must complete this questionnaire in its entirety and submit it with the bid. The bidder must answer all questions. If additional space is required, attach continuation sheets and clearly indicate the question being answered. The City reserves the right to verify any information contained within this report and to request additional information or clarification. The City reserves the right to reject the bid of a bidder who has previously failed to perform properly or to complete in a timely manner contracts of a similar nature, or if investigation shows the bidder unable to perform the requirements of the Contract or if the bidder fails to complete and submit the Bidder's Questionnaire in its entirety. If additional sheets are necessary please attach to this form and reference the applicable number.

Submitted by (name and title)		
Signature of Authorized Representative:		
Name of Firm:		
Address:		
City	State	ZIP
Organized under the laws of State of:		
DUNS #		
1. ORGANIZATION		
1.1 How many years has your organizati	on been in business as a Contra	actor?
1.2 How many years has your organizati	on been in business under its p	resent business name?
1.3 Under what other or former names h	nas your organization operated?	?
1.4 If your organization is a corporatio	on, answer the following:	

Date of incorporation:

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State of incorporation:
President's name:
Vice-president's name(s):
Secretary's name:
Treasurer's name:
1.5 If your organization is a partnership, answer the following:
Date of organization:
Type of partnership (if applicable):
Name(s) of general partner(s):
1.6 If your organization is individually owned, answer the following:
Date of organization:
Name of owner:
1.7 If the form of your organization is other than those listed above, describe it and name the principals:
2. LICENSING
2.1 List jurisdictions and trade categories in which your organization is legally qualified to do business, and indicate registration or license numbers, if applicable.
3. EXPERIENCE

3.1 List the categories of work that your organization normally performs with its own forces.

- 3.2 Has your organization ever failed to complete any work awarded to it? If yes, please provide details on a separate sheet.
- 3.3 Are there any judgment, claims, arbitration, proceedings or suits pending or outstanding against your organization or its officers? If yes, please provide details.
- 3.4 Within the past five years, has any officer or principal of your organization ever been an officer or principal of another organization when it failed to complete a construction contract? If yes, please provide details.
- 3.5 Within the last two years, has any owner of any project threatened to impose or imposed liquidated damages against your organization? If yes, provide details.
- 3.6 Within the last two years, has your organization constructed any projects where the date of substantial completion was more than 30 days after the contract completion date as determined by the contract and any changes orders? If yes, provide details.
- 3.7 Within the last 2 years, has your organization constructed any projects where the change orders exceeded 10% of the contract price? If yes, provide details.
- 3.8 State the total worth of work in progress and under contract:
- 3.9 State the average annual amount of construction work performed during the past five years:

4. FINANCIAL

- 4.1 State that you will provide a copy of your firm's audited financial statements for the past two (2) years, if requested, by the City of Rockville.
- 4.2 Is your firm currently for sale or involved in any transaction to expend or to become acquired by another business entity? If yes, please explain the impact both in organizational and directional terms.
- 4.3 Is your firm currently in default on any loan agreement or financing agreement with any bank, financial institution, or other entity? If yes, specify date(s), details, circumstances, and prospects for resolution.

5 SAFETY

Invitation For Bid #06-14 REVISION 1, December 26, 2013 Accessible Pedestrian Signals Project

- 5.1 Has your organization been cited by OSHA (or State equivalent) in the past five years? If so, provide a copy of the citation(s).
- 5.2 Has your organization experienced a work-related fatality in the past 10 years? If so, please provide details.
- 5.3 Provide copies of the last 3-years OSHA Form 300A or OSHA 300 Log. Please omit any personally identifiable or confidential information.
- 5.4 Provide a copy of your current Workers' Compensation Experience Rating from the NCCI.
- 5.5 Does your organization have a written safety program?
- 5.5.1 Describe the safety training programs offered to all employees on the elements of the safety program.
- 5.6.2 When was the last year the written safety program was audited or updated?
- 5.6.3 Provide an overview of the elements of your written safety program (i.e., table of contents). (This may be returned to non-awarded bidders.)
- 5.7 Does your organization hire subcontractors?
- 5.7.1 Does your organization conduct pre-contractor qualification of these subcontractors specifically focusing on their safety performance?
- 5.7.2 Describe how your organization manages the safety performance of subcontractors on the jobsite.
- 5.7.3 Does your organization have a written policy addressing subcontractor's responsibility for complying with OSHA regulations on jobsites? (i.e., OSHA's multi-employer citation policy).

CERTIFICATION

The above statements are certified to be true and accurate.	e certified to be true and accurate.	
BY:		
Signature	Date	

Invitation For Bid #06-14
REVISION 1, December 26, 2013
Accessible Pedestrian Signals Project

Print Signature/Title

BIDDER REFERENCE FORM

Indicate below a listing of five recent projects completed by your firm that can substantiate past work performance and experience in the type of work required for this contract. The City may make such investigations as it deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the City all such information and data for this purpose as the City may request.

1. Firm Name	
Address:	
Contact Person:	Current phone #:
Email Address:	
Contract Amount:	Name of your project supervisor:
Scheduled completion date:	Percent complete:
Percent of work by own forces:	Actual completion date:
Description of Work Performed:	
2. Firm Name	
Address:	
Contact Person:	
Email Address:	
Contract Amount:	Name of your project supervisor:
Scheduled completion date:	
Percent of work by own forces:	Actual completion date:
Description of Work Performed:	
2 Eirm Nomo	
Address:	
Contact Person:	
Email Address:	
Contract Amount:	
Scheduled completion date:	· · · · · · ·
Percent of work by own forces:	
Description of Work Performed:	
4. Firm Name	
Address:	
Contact Person:	

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Name of your project supervisor:
Percent complete:
Actual completion date:
Current phone #:
Name of your project supervisor:
Percent complete:
Actual completion date:
-

SUB-CONTRACTOR REFERENCE FORM

Submit a separate reference form for EACH proposed subcontractor.

The City of Rockville reserves the right to reject bids from any firm not meeting the minimum qualifications. Furnish a representative list of three (3) projects.

SUBCONTRACTOR'S NAME:		
ADDRESS:		
TELEPHONE:		
CONTACT NAME:		
DESCRIPTION OF ITEM(S) TO BE SU	JBCONTRACTED:	
1. Firm Name		
Address:		
Contact Person:	Current phone #:	
Email Address:	<u></u>	
Contract Amount:	Name of your project supervisor:	
Scheduled completion date:	Percent complete:	
Description:		
2. Firm Name		
Address:		
Contact Person:	Current phone #:	
Email Address:	<u></u>	
Contract Amount:	Name of your project supervisor:	
Scheduled completion date:	Percent complete:	
Description:		
3. Firm Name		
Address:		
Contact Person:	Current phone #:	
Email Address:		
Contract Amount	Name of your project supervisor:	
Scheduled completion date:	Percent complete:	
Description:		



CONTRACT PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That we (1)

	a (2)		
hereinafter o	called "Principal" and (3)		
of	, State of		hereinafter called the "Surety", are held
and firmly b	ound unto (4) The Mayor and Co	uncil of Ro	ockville, Maryland, hereinafter called "City", in the
penal sum o	f (100% of Contract Amount)	(\$) in lawful money of the United States, for the
payment of	which sum well and truly to be ma	ade, we bir	nd ourselves, our heirs, executors, administrators
and successo	ors, jointly and severally, firmly b	y these pre	sents.
THE CO	ONDITION OF THIS OBLIGAT:	ION is such	n that Whereas, the Principal entered into a certain
contract with	h the City, dated the	_day of	, 2013, a copy of which is hereto
attached and	I made a part hereof for the constr	ruction of:	
NOW, 7	ΓΗEREFORE, if the Principal sha	ıll well, tru	ly and faithfully perform its duties, all the
undertaking	s, covenants, terms, conditions, ar	nd agreeme	nts of said contract during the original term thereof,
and any exte	ensions thereof which may be gran	nted by the	City, with or without notice to the Surety, and if he
shall satisfy	all claims and demands incurred	under such	contract, and shall fully indemnify and save
harmless the	e City from all costs and damages	which it m	ay suffer by reason of failure to do so, and shall
reimburse ar	nd repay the City all outlay and ex	cpense whi	ch the City may incur in making good any default,
then this obl	ligation shall be void; otherwise to	remain in	full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

CONTRACT PERFORMANCE BOND

PAGE 2

PROVIDED, FURTHER, that no final settlement between the City and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

be deemed an original, this the day of	is executed in two (2) counterparts, each one of which shall, 2013.
ATTEST:	Principal
	By(Seal)
Corporate Secretary or Asst. Secretary	President or Vice President
(Print or Type Name and Title)	(Print or Type Name and Title)
	(Address)
ATTEST:	Surety
	(C1)
Witness as to Surety	By(Seal) Attorney-in-Fact
(Print or Type Name and Title)	(Print or Type Name)
(Address)	(Address)
NOTE: Date of Bond must not be prior to date of	
(2) Correct name of Contractor	
(3) A Corporation, a Partnershi	ip or an Individual
(4) Name of Surety	
(5) Name of City	

(6) If Contract is Partnership, all partners should execute bond

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CONTRACT PAYMENT BOND

KNOW ALL MEN BY	THESE PRESENTS: That w	re (1)	
	a (2)		
			hereinafter called the "Surety
penal sum of (100% of	Contract Amount) (\$ y to be made, we bind oursely) in lawful money of the Uni	, hereinafter called "City", in the ted States, for the payment of istrators and successors, jointly
with the City, dated the		2013, a copy of which is hereto	entered into a certain contract attached and made a part hereof
corporations furnishing contract, and any autho	materials for or performing larged extension or modification	abor in the prosecution of the	nts due for materials, lubricants,

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants oil, gasoline, coal, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such work, and all insurance premiums on said work, and for all labor, performed in such work whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contact or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contact or to the work or to the specifications.

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CONTRACT PAYMENT BOND

PAGE 2

PROVIDED, FURTHER, that no final settlement between the City and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument an original, this the day of 2013		two (2) counterparts, each one of wh	nich shall b
ATTEST:		Principal	
	Ву		(Seal)
Corporate Secretary or Asst. Secretary		President or Vice President	
(Print or Type Name and Title)		(Print or Type Name and	l Title)
		(Address)	
ATTEST:		Surety	
	By	·	(Seal)
Witness as to Surety	<u>, ——</u>	Attorney-in-Fact	
(Print or Type Name and Title)		(Print or Type Name)	
(Address)		(Address)	

NOTE: Date of Bond must not be prior to date of Contract.

- (1) Correct name of Contractor
- (2) A Corporation, a Partnership or an Individual
- (3) Name of Surety
- (4) Name of City
- (5) If Contract is Partnership, all partners should execute bond.

SAMPLE

STANDARD FORM OF AGREEMENT BETWEEN THE CITY OF ROCKVILLE AND CONTRACTOR

This Agreement, made this	day of	, 2013, by and between	
THE MAYOR AND COUNCIL	C OF ROCKVILLE,	MARYLAND, hereinafter referred to as the "COUNG	CIL" and
(A)		hereinafter referred to as the "CONTRAC"	TOR".
WITNESSETH, that the agree as follows:	e CONTRACTOR a	nd the COUNCIL for the consideration hereinafter na	med,
ARTICLE 1. The COUNCIL a	grees to pay the CO	NTRACTOR for the performance of the contract the s	sum
of		dollars(\$)
ARTICLE 2. The CONTRACT such form as shall be acceptable	· ·	h a 100% performance bond and a 100% payment bon	nd in

ARTICLE 3. The CONTRACTOR agrees to furnish all of the machines, equipment, material, and/or labor described in the specifications entitled "Invitation For Bid #06-14, REVISION 1, December 26, 2013, Accessible Pedestrian Signals Project."

ARTICLE 4. The COUNCIL may make any alterations, deviations, additions or omissions from the aforesaid specifications, which it may deem proper, without affecting or making void this contract; and in such cases the COUNCIL shall value or appraise such alterations and recommend the amount added to or deducted from the amount herein agreed to be paid to the CONTRACTOR for the excess or deficiency occasioned by such alterations. In case any alterations or deviations are made, such further time may be allowed for completion of the work, caused by such alterations or deviations as the purchasing agent or an appropriate department head of the City of Rockville shall decide to be reasonable.

ARTICLE 5. If the CONTRACTOR shall be adjudged bankrupt or if it shall make a general assignment for the benefit of its creditors, or if a Receiver shall be appointed on account of its insolvency, or if it shall persistently or repeatedly refuse or shall fail, except in case where extension of time is provided, to supply enough properly skilled workmen or proper materials or if it should fail to make prompt payment to subcontractors for materials or labor, or disregard law, ordinances or the instructions of the COUNCIL or otherwise be guilty of substantial violation of any provision of this Agreement, then the COUNCIL may, without prejudice to any other right or remedy, and after giving the CONTRACTOR reasonable notice, terminate the employment of the CONTRACTOR and take possession of the machines, equipment and material already delivered or in process of delivery.

ARTICLE 6. The CONTRACTOR and the COUNCIL agree that this Agreement, the Invitation for Bid or the request for quotation and all of the specifications therewith and all modifications thereof constitute the Contract, Page 145 of 149

Invitation For Bid #06-14 REVISION 1, December 26, 2013 Accessible Pedestrian Signals Project

and that they are fully a part of the Contract as if hereto attached or herein repeated and that for themselves and each of them, their successors, personal representatives and assigns hereby agree to the performance of the covenants herein contained.

ARTICLE 7. The CONTRACTOR, with the execution of this Contract, makes assurance that all materials necessary for the completion of this project are now available to him or will be available so as not to cause delay in the time specified for completion, nor will there be any further expense to the COUNCIL by reason of any special expense imposed by its supplier or fabricator after this Contract is executed.

ARTICLE 8. The CONTRACTOR at all times shall observe and comply with all Federal and State Laws and local laws, ordinances and regulations in any manner affecting the conduct of the work; and all such other orders or decrees as exist at present and those which may be enacted later, of bodies or tribunals having any jurisdiction or authority over the work, and shall indemnify and save harmless the Mayor and Council and all of its officers, agents, and servants against any claim or liability arising from or based on the violation of any such laws, bylaws, ordinances, regulations, orders or decrees whether by himself or its employees.

ARTICLE 9. The CONTRACTOR shall indemnify and save harmless the Mayor and Council of Rockville, Maryland, and all its officers, agents and servants from all suits, actions and damages and costs, of every name and description to which the COUNCIL may be subjected or put by reason of injury to persons or property as a result of the work, whether caused by negligence or carelessness on the part of the CONTRACTOR, its servants or agents or to other cause.

IN WITNESS WHEDEOE 41- -- 14 (A)

IN WITNESS WHEREOF, the said (A)		
and		
the COUNCIL have caused these presents to be signed and	d sealed.	
For Corporations.		
Corporation:		
*By:	(Seal)	
(Either president or vice-president. If other person is auth		
authorization in form of corporate resolution must be atta	ched.)	
Witness:		
(Should be secretary or Asst. secretary.)		
*Corporate seal must be impressed through name of perso	n signing for corporation.	
For individuals or partnerships.		
Name:	(Seal)	
(Either owner or partner)		
Witness		

MAYOR AND COUNCIL OF ROCKVILLE, MARYLAND

By	
Barbara Matthews, City Manager	Date
ATTEST:	
By	
Douglas Barber, City Clerk	Date
Approved as to form and legality:	
By	
City Attorney	Date

NOTE (A): The CONTRACTOR shall enter the exact name of the business. An individual trading as a company shall enter: John Doe dba Doe Masonry Company.

APPENDIX A

MONTGOMERY COUNTY NOISE ORDINANCE

Notice to Contractors

The Montgomery County Council recently enacted a comprehensive revision to the County Noise Control Ordinance (<u>Chapter 31B</u>, <u>Montgomery County Code</u>), including changes to the provisions concerning noise from construction activities.

GENERAL ORDINANCE STANDARDS

(Non-construction related)

Maximum allowable sound levels, measured at the nearest receiving property line, are 65 dBA (A-weighted decibels) during daytime hours and 55 dBA during nighttime hours, for residential receiving properties (67 dBA daytime and 62 dBA nighttime for non-residential receiving property). Mixed Use Zones are considered residential.

"Daytime" means from 7 a.m. to 9 p.m. weekdays and 9 a.m. to 9 p.m. weekends and holidays.

"Nighttime" means from 9 p.m. to 7 a.m. weekdays and 9 p.m. to 9 a.m. weekends and holidays.

"Receiving Property" means any property where people live or work and where noise is heard.

CONSTRUCTION EXEMPTION AND STANDARDS

"Construction" means temporary activities directly associated with site preparation, assembly, erection, repair, alteration, or demolition of structures or roadways. Construction Noise levels must be measured on a receiving property, but no closer than 50' from the noise source.

From 7 a.m. to 5 p.m. Weekdays, Construction Noise Levels must not exceed:

75 dBA without a "Noise Suppression Plan".

85 dBA with a "Noise Suppression Plan".

"Noise Suppression Plan" means a written plan to use the most effective noise suppression equipment, materials, and methods appropriate and reasonably available for a particular type of construction.

At all times other than 7 a.m. to 5 p.m. weekdays, the general standards specified above must be met.

For example: Assuming a residential or mixed-use receiving property, construction noise levels from 5 p.m. to 9 p.m. weekdays and from 9 a.m. to 9 p.m. weekends and holidays must not exceed 65 dBA. From 9 p.m. to 7 a.m. weekdays and 9 a.m. on weekends and holidays, the standard is 55 dBA (this is unchanged from the previous ordinance).

Construction activities are also subject to the "Noise Disturbance" provisions of the Ordinance. Examples of Noise Disturbances are delivering materials or equipment, or loading or unloading in a residential area, or operating construction equipment with audible back-up warning devices during Nighttime Hours.

Summary - Construction Noise

Measured at nearest receiving property, but no closer than 50' from the noise source.

Weekdays (Monday - Friday), 7 a.m. to 5 p.m.

Without Suppression Plan: 75 dBA With Suppression Plan: 85 dBA

5 p.m. to 9 p.m.: 65 dBA 9 p.m. to 7 a.m.: 55 dBA Saturday, Sunday, Holidays 9 a.m. to 9 p.m.: 65 dBA 9 p.m. to 9 a.m.: 55 dBA

In the majority of circumstances in the County, the Receiving Property will be considered residential. In cases where the nearest receiving properties are non-residential, the standards will be 67 dBA/Daytime and 62 dBA/Nighttime, except from 7 a.m. to 5 p.m. weekdays, when the higher construction exemption prevails.

While a Noise Disturbance, as defined by the Ordinance, could conceivably occur at any time, it is most likely to happen during the Nighttime Hours. The most common complaint involves back-up beepers, and can be avoided by employing lawful alternatives to audible devices.

The Department of Environmental Protection is currently developing Regulations for Noise Suppression Plans, as required by the revised Ordinance. In general, such plans will involve equipment selection and maintenance, scheduling and reasonable care in planning and conducting operations. Often, noise suppression measures can be fabricated on-site using materials at hand.

As a point of reference, two persons, speaking in normal tones of voice at a distance of three feet, will generate about 63 dBA between them. Therefore, normal, fully intelligible conversation would be possible at the receiving property line of a site generating 65 dBA or less. By comparison, for normal, intelligible speech at a distance of about ten feet between speakers, the background sound would have to be 55 dBA or less.

Most equipment manufacturers, and especially those who produce or market in Europe or Asia, will have detailed noise performance specifications for their products. Many also provide silencing packages, both design and retrofit.

Copies of the revised Ordinance will be mailed upon request. If there are any questions or comments, please do not hesitate to contact the <u>Office of Environmental Policy and Compliance</u> at 240-777-7770.